

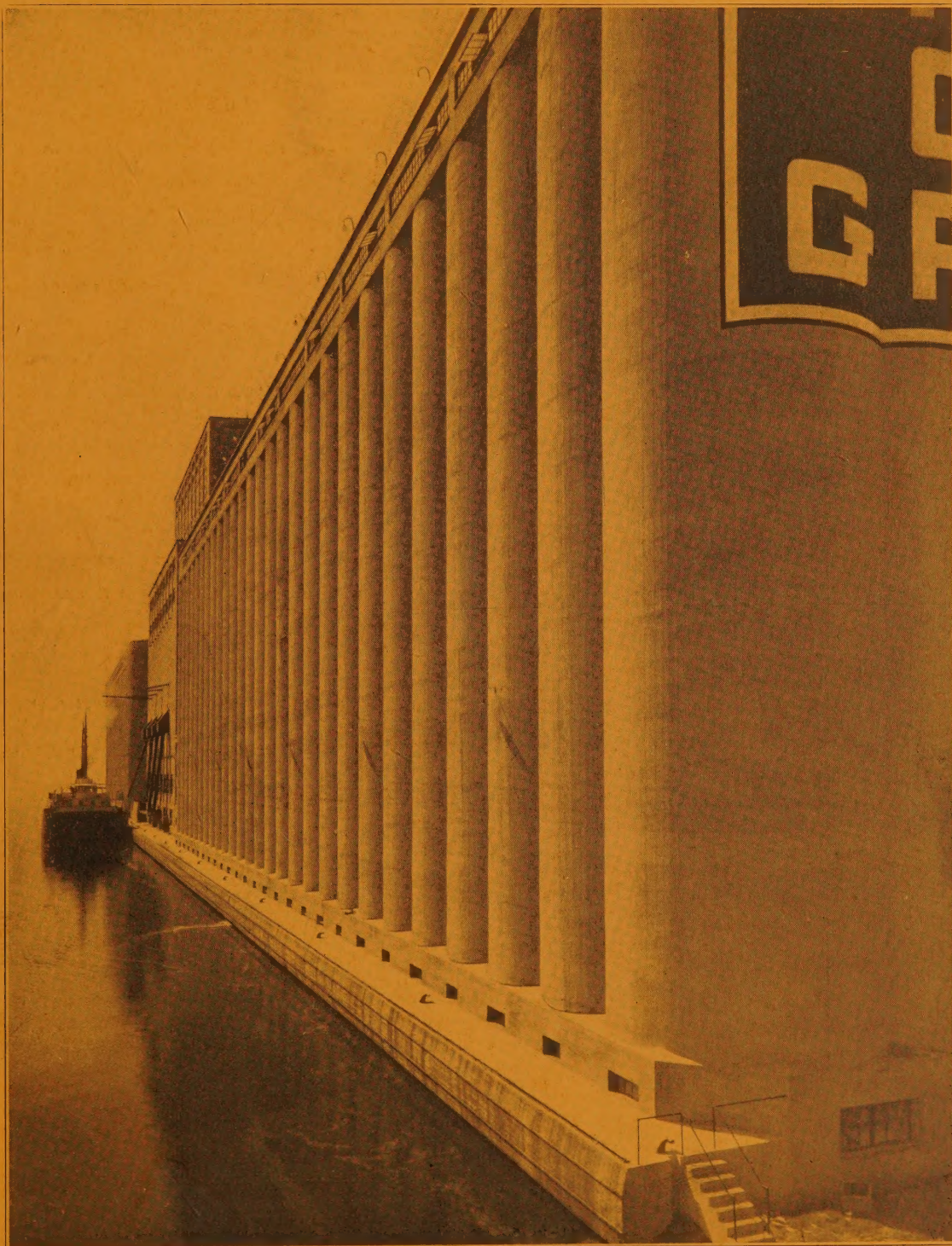
Vol. LXXVI. No. 7

Chicago, Ill., U. S. A., April 8, 1936

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GRAIN & FEED JOURNALS CONSOLIDATED

A Merger of Grain Dealers Journal, American Elevator & Grain Trade, Grain World and Price Current-Grain Reporter



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In Organized Markets Only Members of the Local Grain Exchange Will Be Listed

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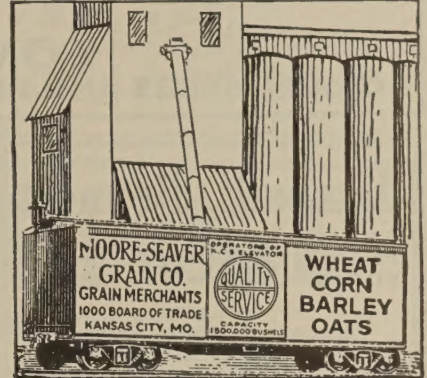
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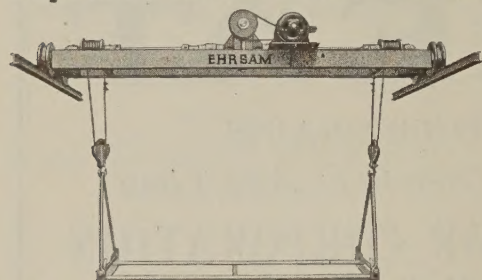
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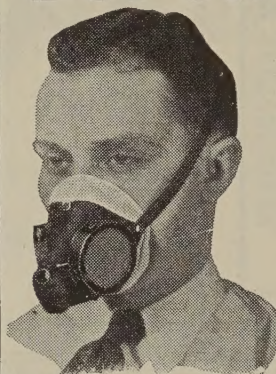
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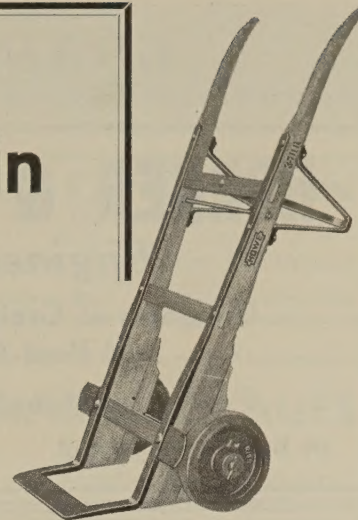
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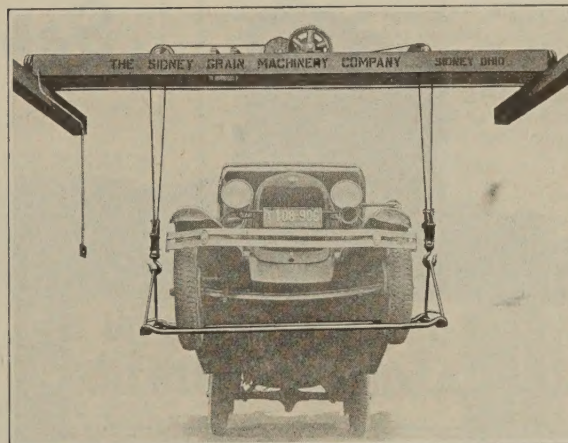
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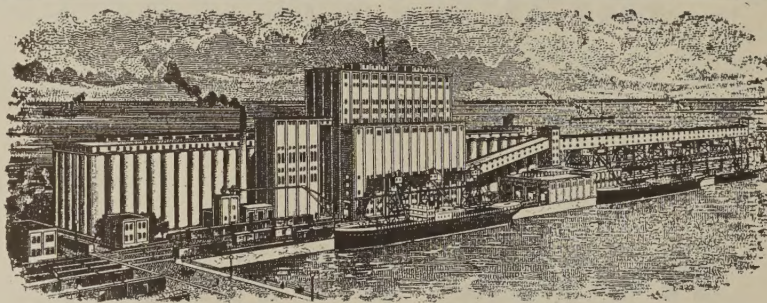
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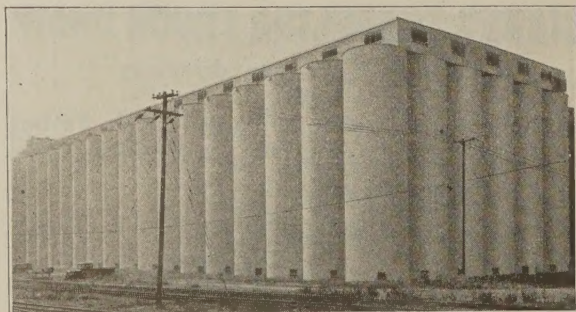
Capacity
10,500,000 Bushels**JOHN S. METCALF CO.**
Grain Elevator Engineers and Constructors

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460 St. Helen St., Montreal

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11,000,000-Bushel Elevator Permanently Moisture Proofed and
Heat Protected by GUNTEX METHOD*"We did the work"***CEMENT GUN CONSTRUCTION CO.**

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**Made in two models**The SUPERIOR "D.P." Elevator Cup is our standard. They
increase capacity; scoop full, and do not break grain. The
"O.K." style has a large flare so that discharge can be
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Send for Table of Speeds and Inches.

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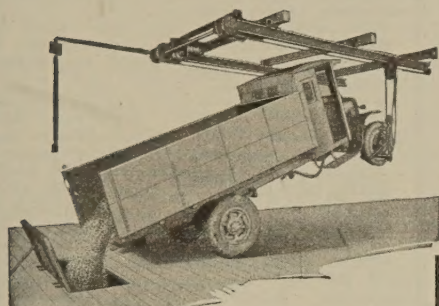
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WE SPECIALIZE

In Modernizing Country Elevators
Our recommendations will cost you nothing. When do you wish us to submit estimates on remodeling your grain-handling facilities?

THE VAN NESS CONSTRUCTION CO.
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McMillin Truck Dump For Electrical Power



An Overhead Electrically Operated Truck Dump.

Has stood the test of years.
SIMPLE, SPEEDY and DURABLE.

A pioneer in the line of Truck Dumps.

Safety is our motto.

To our many customers of years ago we are pleased to advise you that we now supply wheel hooks of sufficient size to take the largest truck tire, in exchange for your old hooks at a minimum charge.

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Coon Rapids, Ia.—I have taken the Journals for 23 years and could not get along without it.—William Grettenberg, Wm. Grettenberg Grain Co.

I enclose money for renewal of the Journals. Certainly miss it when it doesn't arrive every two weeks.—Charles E. Towne, Rochester, Ind.

Safety Sample Envelopes

for mailing samples of grain, feed and seed. Made of heavy kraft paper, strong and durable; size, 4½x7 inches. Have a limited supply to sell at \$2.35 per hundred, 500, \$10.00 plus postage.

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CONSTRUCTION OF
Grain Elevators—Feed Mills—
Flour Mills—Coal Pockets

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Concrete Costs No More

Let us prove it.
Plans and estimates
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Eighth edition, extended to show bushels in largest carloads, shows the following range of reductions of pounds to bushels by fifty pound breaks.

20,000	to 129,950 lbs.	to bushels of 32 lbs.
20,000	" 74,950 "	" " 34 "
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Pounds in red ink; bushels in black, 48 pages.
Linen ledger paper reinforced, bound in keratol with marginal index. Weight, 8 oz.

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Designers and Builders
Elevators, Feed Mills, Warehouses
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WE BUILD GRAIN STORAGES

29 Years' Experience
Send us your inquiries

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GRAIN ELEVATOR BUILDERS

Feed Mills Coal Plants
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CALUMET Elevator Cups

Large Capacity

Can be used continuous, or for replacement of other buckets. If used continuous will double capacity. No back-legging, will operate at wide variation of speeds, and can be used around very small head pulleys. In use in many large elevators and feed plants.

Protected by U. S. and Foreign Patents.

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Sole Manufacturer

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Modern Convenience Old Fashioned Comfort

The newest first class hotel in Downtown St. Louis—near to the theatres, shops, office buildings—offers home-like comfort. Two air-conditioned restaurants. Garage Service. All rooms with both tub and shower bath, \$2.50 up. Over 50% of the rooms rent for \$3.50 or less.

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IN ST. LOUIS

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WANT ADS

in the GRAIN & FEED JOURNALS Consolidated make wants known to everyone connected with the grain trade. If you desire to buy or rent, sell or lease an elevator or anything used by grain dealers, try a want ad twice a month and your want will soon be satisfied.

Wanted and For Sale

The rate for advertisements in this department is 25 cents per type line each insertion

ELEVATORS FOR SALE

CENTRAL INDIANA—Elevator, feed mill and residence for sale cheap; good grain and clover section. 76E12 Grain & Feed Journals, Chicago.

Whenever there is a real opportunity of interest in the grain trade, it is usually registered in the "Wanted-For Sale" columns of the Journal.

WISCONSIN—Grain elevator, feed and seed business for sale. Located in rich agricultural section. Good barley territory. Elevator capacity 10,000 bus. Warehouse, 35x150 ft. On Milwaukee road tracks. Cleaning machinery. Write T. H. Cochrane Co., Portage, Wis.

STOP! READ! THINK! One advertiser writes, "Your service brought me 24 replies." We can do the same for you. Don't wait, write now.

SOUTHEASTERN WYO.—25,000 bus. grain elevator in a good town and a good location for sale or lease. Owner has been sick and unable to attend to business for some time. Would like to sell if possible. Price and terms reasonable. W. O. Eaton, Torrington, Wyo.

KANSAS Elevator practically sold after three insertions. Here's what the advertiser writes: "We enclose check for three insertions of our ad. We have had more than a dozen inquiries from our ad and believe that we will be able to effect a sale." This proves conclusively the value of a Journal Want-Ad.

COLORADO—8000 bu. capacity grain elevator, warehouses and coal sheds for sale. Equipped for grinding grain, cleaning and storing beans. A good wholesale and retail business in the Platte Valley Agricultural and cattle feeding district. Located at a junction point of the U. P. R. R. at La Salle. C. S. Boulter, Manager, La Salle Elevator Co., La Salle, Colo.

BARGAIN IF TAKEN AT ONCE—Some one is always looking for an elevator at a good grain point and reads these ads just like you're doing now, so if you wish to dispose of your present property, enlarge your present interests, or embark in the grain business, USE these columns to your best advantage just as others are doing. WE WILL assist you in the composition of copy free. We are in business to be of service to YOU. There is no wrong time to put an ad in the columns of the Journal. TRY IT.

ELEVATORS FOR SALE

ILLINOIS—On account of death of partner 24,000 bu. electrically equipped elevator for sale; own land; served by C. B. & Q. and T. P. & W. R. R. Chas. E. Henry, Bushnell, Ill.

On the other end of the Journal's "Wanted-For Sale" columns you will find 9,000 grain dealers anxious to know what you have for them.

MINNESOTA—125,000 bus. iron clad frame cleaning and transfer elevator for sale, electric power, fast handling, good cleaner equipment, Northwestern road, a good transit point, and in good barley territory. Real bargain price Banner Grain Co., Minneapolis, Minn.

ELEVATOR FOR RENT

EAST CENTRAL ILL.—14,000 bu. elevator for rent; electric power; Kewanee lift; poor health reason for renting. Write J. Kemp Carson, Clarence, Ill.

ELEVATORS WANTED

LARGE SIZE ELEVATOR Wanted, Illinois, Indiana or Ohio. O. Hunter, 803 Fifth St., North, St. Petersburg, Florida.

WANT TO RENT OR buy 20 to 30,000 bushel elevator in Eastern South Dakota, Southwestern Minn., or Northwestern Iowa. Write 76E20, Grain & Feed Journals, Chicago, Ill.

A 250,000 TO 300,000 bushel elevator wanted, located in good barley section of Montana, Minnesota or Wisconsin. Write 76G13, Grain & Feed Journals, Chicago, Ill.

IF YOU DO NOT find the elevator you want advertised, place your wants in the "Elevators Wanted" section and you will receive full particulars regarding many desirable properties not yet advertised.

MILLS FOR SALE

ILLINOIS—Modern feed mill equipped with up-to-date machinery for sale. Located at Chatsworth, Ill. Write to Corn Belt Elevator, Fairbury, Ill.

HELP WANTED

COMPETENT AND EXPERIENCED elevator managers, foremen, bookkeepers, auditors, second men and solicitors can easily and quickly be found through an ad in the "Help Wanted" column of the Grain and Feed Journals, Consolidated, Chicago, Ill.

SITUATION WANTED

WANT POSITION managing elevator; 20 yrs. exper.; references; go anywhere. Write 76E10, Grain & Feed Journals, Chicago, Ill.

SEEDS FOR SALE

ONE CARLOAD Registered Thatcher Wheat, machine run, \$1.75 per bu. on car Oslo.-Erickson Bros., Oslo, Minn.

CHOICE OATS suitable for seed. Phone, wire, write The Van Dusen Harrington Co., Minneapolis, Minn.

THATCHER WHEAT, Registered Blue Tag \$2.10 per bushel, new 2 bushel bags included. Farmers Elevator Co., Moorhead, Minn.

HIGH QUALITY 1933 crop yellow and white seed corn, locally grown, graded and tested. Lexington Mill & Elev. Co., Lexington, Neb.

HIGH TEST SEED corn, white and yellow \$2.50 per bu. Liberal commission to elevator operators. Butler-Welsh, Nebraska City, Neb.

SEED CORN, yellow and white early maturing varieties; carefully selected and graded seed. Graham Grain Co., Terre Haute, Ind.

Your RADIO MARKET Record

A boon to the grain dealer who keeps a convenient, permanent record of market quotations for ready reference.

This form provides convenient spaces for hourly quotations on Wheat, Corn, Oats, Rye, and Barley. A week on a sheet, and a year's supply of sheets in a book.

Order Form CND 97-5.
Price, \$1, plus postage. Shipping Weight, 1 lb.

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332 S. La Salle St. Chicago, Ill.

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A consolidation of Grain Dealers Journal, American Elevator & Grain Trade, Grain World and Price Current-Grain Reporter.

Gentlemen:—In order to keep us posted regarding what is going on in the grain and feed trades outside our office, please send us the *Grain & Feed Journals* twice each month. Enclosed find Two Dollars for one year.

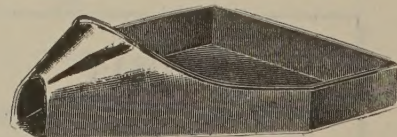
Name of Firm.....

Capacity of Elevator

Post Office

State

SAMPLE PANS



Formed by bending sheet aluminum, reinforced around top edge with copper wire. Strong, light, durable. The dull, non-reflecting surface of aluminum will not rust or tarnish; assists users to judge of the color and to detect impurities.

Grain Size, 2½x12x16½", \$2.00; Seed Size, 1½x9x11", \$1.65, at Chicago.

GRAIN & FEED JOURNALS

Consolidated

332 So. La Salle St., Chicago, Ill.

Receiving Books For Grain Buyers

Wagon Loads Received. A good form used extensively in recording wagon loads of grain received from farmers. Tare weight is entered immediately under gross to facilitate subtraction. Contains 200 pages of linen ledger paper, and is ruled 20 lines to a page, thus accommodating 4,000 wagon loads. Separate pages may be devoted to each kind of grain to each farmer, or wagon loads may be entered in the order received. Well bound in cloth, with keratol back and corners. Order Form 380. Price \$2.50. Weight 2½ lbs.

Receiving and Stock Book for keeping a record of each kind of grain received in separate columns, so buyer may easily determine total amount of any kind of grain on hand. Size 9¼x11½, 200 pages, with a capacity for 4000 wagon loads. Well printed on linen ledger paper, bound in strong board with leather back and corners. Order Form 321. Price \$2.50. Weight 2½ lbs.

Scale Ticket Copying Book contains 150 leaves of scale tickets, four to a leaf. Each leaf folds back upon itself, so that with the use of carbon paper, it will make a complete copy of the original on the stub, with one writing. Original tickets forming the outer half of leaf are machine perforated. Printed on bond paper, check bound, size 9¼x11, supplied with four sheets of carbon. Order Form 73. Price, \$1.30. Weight 2 lbs.

Grain Scale Book, a combined Journal and Receiving book with index. Each man's grain is entered on his own page, or a page may be allotted to each kind of grain received. Both debits and credits are posted to the ledger. Contains 252 numbered pages and index, size 10¼x15½, and will accommodate 10,332 wagon loads. Printed on linen ledger, bound in extra heavy black cloth covers, with leather back and corners. Order Form 23. Price \$4.00. Weight 5 lbs.

Grain Receiving Register is designed for recording the receipts of wagon loads of grain. Loads may be entered in consecutive order, or different sections of the book may be devoted to different kinds of grain. Book contains 200 pages of linen ledger paper, size 8½x14 inches, each of which is ruled for 41 entries, giving a total capacity of 3200 wagon loads. Well printed and substantially bound in full canvas. Order Form 12AA. Price \$2.50. Weight 3 lbs.

Duplicating Wagon Load Receiving Book, designed to facilitate the recording of number of loads from one farmer in a short time. Book contains 225 leaves, size 12x12 inches with 33 lines each, perforated down the middle; the inside half of the leaf remains in the book, and the outer half with the same ruling printed on the reverse side, folds back over the left half with carbon between. Outer half is given to farmer. It may also be used by line agents in making daily reports to headquarters. Check bound with canvas back, nine sheets of carbon. Order Form 66. Price \$2.60. Weight 4½ lbs.

Grain Receiving Ledger, may be used first as a Stock Book by posting the receipts daily, weekly or monthly from some other portion of this book, or from any other scale book, giving a page to the commodity handled; Second, as a patrons' ledger, by giving a full or half page to each patron; Third, pages may be used to enter each load of grain received in consecutive order under their respective commodity headings. The book contains 200 numbered pages with 44 lines each, and marginal index in front, size 8¼x13¾, ruled with the usual column headings, including Debit and Credit columns. Printed on linen ledger paper and well bound in black cloth sides with keratol back and corners. Order Form 43. Price \$3.00. Weight 2½ lbs.

Form 43XX contains 400 pages same as above. Price \$5.00. Weight 4½ lbs.

All Prices are for Chicago Delivery.
Postage Extra.

Printed and Supplied by

**Grain & Feed Journals
Consolidated**
332 South La Salle St. Chicago, Ill.

MACHINES FOR SALE

CORN CUTTER & Grader—has motor—used very little. 76D6 Grain & Feed Jnrls., Chicago.

GOOD USED SPROUT Waldron ear corn crusher for sale. Hilbert Elevator, Hilbert, Wis.

A GOOD BUY—Manlift 50' high, also truck dump for sale. W. W. Pearson, West Point, Ind.

FEED MIXER—one ton—floor level feed—has motor—good as new. Write 76D8 Grain & Feed Journals, Chicago, Ill.

FEED MIXER for sale, has motor, and a late machine. Need space. Will sacrifice. Write 76D5 Grain & Feed Journals, Chicago, Ill.

HAMMER MILL with 25-h.p. motor and all attachments. Priced to sell. Write 76D7 Grain & Feed Journals, Chicago, Ill.

A BARGAIN—For sale cereal cutter, separator and grader, 3000 lb. cap., well known make, never used. J. A. Cleaver, Columbus St., Wilmington, Ohio.

DREADNAUGHT CORN crusher for sale. 24" Dreadnaught attrition mill with 40-h. p. Howell motor, two elevator legs 20 ft. over all, one 7½-h.p. Fairbanks Morse motor. Kawkawlin Bean & Grain Co., Kawkawlin, Mich.

MACHINERY FROM dismantled elevator for sale including No. 33 Western gyrating cleaner, 400-600 bu. cap. Western pitless corn sheller, 6 bu. auto scale. 35-h.p. Muncie oil engine, 6000-gal. oil tank, shafting, pulleys, belts, etc. Vigo Grain Co., Terra Haute, Ind.

NEW AND REBUILT MACHINERY

1 vertical half ton mixer (new); 1 horizontal half ton mixer; 1 corn cutter and grader; 1 corn cracker and grader; clipper, Invincible and Eureka grain cleaners; 2 and 3 pair high roller mills; 50-h.p. motor driven hammer mill; motor and belt driven attrition mills; automatic hopper and platform scales; 2 water wheels; elevators, pulleys, hangers, etc.; No. 40 Blue Streak mill, and a Crippin bean picker. Everything for the feed mill and elevator. Write your wants to A. D. Hughes Co., Wayland, Mich.

THE WANTED-FOR SALE DEPARTMENT of GRAIN & FEED JOURNALS is a market place where buyer and seller, employer and employee, and those offering investments can meet to their mutual advantage and profit and it will pay every subscriber to give these columns a close study twice each month, because of the constantly changing variety of opportunities seeking your consideration.

MACHINES WANTED

A USED CAR puller wanted in good condition. Corray Bros., Urbana, Ill.

USED 8-IN. MAGNETIC separator wanted to connect with high line. Write Hilbert Elevator, Hilbert, Wis.

A GOOD USED NO. 16 clipper clover seed cleaner wanted, with or without motor. C. G. Wolf, North Liberty, Ind.

GOOD USED 200-250 bu. per hour combination corn sheller and cleaner wanted, without motor. Haldeman-Baum Co., Akron, Ind.

BLUE STREAK 15 or 20-h.p. hammer mill with magnetic separator wanted, rebuilt, in first class condition. Kawkawlin Bean & Grain Co., Kawkawlin, Mich.

ALMOST ANYTHING YOU WANT can be promptly obtained through JOURNAL want ads.

RAT EXTERMINATOR

RAT LUNCHES—Kills rats and mice without poison. Ready to use. Just lay them out. Endorsed by agricultural authorities. \$1 large package—\$3.50 a carton prepaid. Salesmen-Distributors wanted. Rat Lunches Co., Carroll, Ia.

ENGINE WANTED

GOOD USED 35-H.P. Oil Engine Wanted. M. A. Current, Catlin, Ill.

ENGINES FOR SALE

ONE WAUKESHA 4 cylinder 80-h.p. power unit for sale. A-1 condition. Sark & Plum, Inc., Lilly Chapel, Ohio.

ANY KIND, ANY SIZE, Any Price engine, which is not in use, and which you wish to sell, will find many ready buyers if advertised in the "Engines For Sale" column of GRAIN & FEED JOURNALS. Try it.

MOTORS FOR SALE

DYNAMOS AND MOTORS WANTED—Buyers and this equipment are reached in largest numbers and at the least expense through the use of the "DYNAMO-MOTORS" columns of Grain & Feed Journals—the medium for power bargains.

SAMPLE ENVELOPES

SAMPLE ENVELOPES—SPEAR SAFETY—for mailing samples of grain, feed and seed. Made of heavy kraft paper, strong and durable; size 4½x7 inches. Have limited supply to sell at \$2.35 per hundred or 500, \$10.00 plus postage. Sample mailed on request. Grain & Feed Journals, 332 S. La Salle St., Chicago, Ill.

Scale and Credit Tickets

Form 51 Duplicating contains 100 leaves of white bond paper, each leaf bearing five tickets like one illustrated herewith, machine perforated for easy removal, and 100 leaves of yellow post office paper, each leaf bearing five duplicates which remain in the book. Also 4 sheets of No. 1 carbon. Size of book 5½x13¾ inches, check bound, well printed. Each leaf is one ticket wide and five tickets deep.

Order 51 Duplicating 500 tickets. Price, \$1.00, plus postage. Weight, 1¾ lbs. Cash with order for twelve books earns 10% discount.

Send all orders to

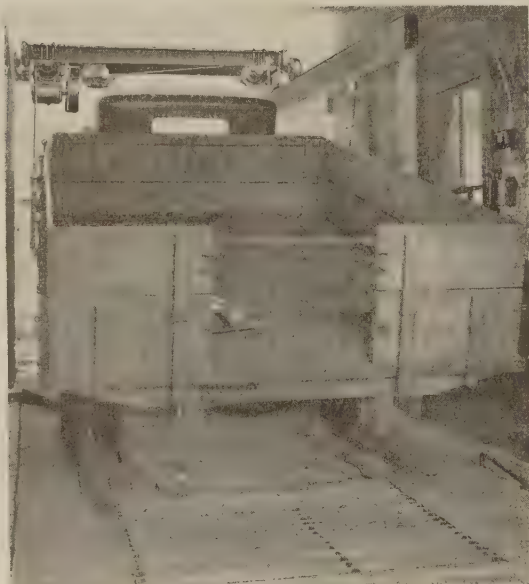
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332 So. La Salle St., Chicago, Ill.

No. _____	_____ 19 _____
Load of _____	
From _____	
To _____	
Gross _____ lbs.	\$ _____ 100 Due to _____
Tare _____ lbs.	_____ or Order.
Net _____ lbs.	
Net _____ bus. _____ lbs.	_____ Weigher.

(Three-Fourths Actual Size)

Kewanee All Steel Truck Lifts

Kewanee truck and wagon lifts are now made in 4 types.

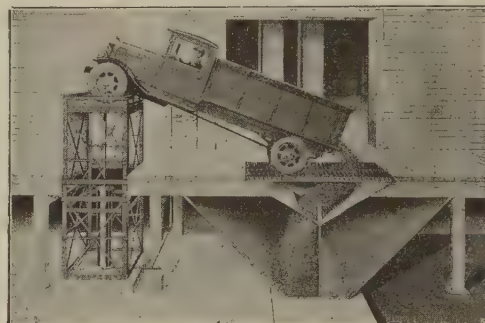


Kewanee Roller Bearing Overhead Lift with Electric Motor. Can also be operated from line shaft.

1. The original steel lift with wood wheel guard.
2. The Standard Model Air Lift with steel safety guard.
3. Crane Type overhead lift.
4. The Universal double cylinder Air Lift for trailer truck outfits, with capacity of 60,000 pounds.

A Model Installation with a Kewanee 72" cylinder lift and a 14' grate, for dumping wagons or long wheel base trucks.

KEWANEE
Renewable
Bottom
GRAIN SPOUTS
will save grain,
money and time.



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KEWANEE MACHINERY & CONVEYOR CO., Kewanee, Ill.

Distributed by Fairbanks, Morse & Co.

St. Louis
Omaha
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"JAY BEE"

The World's
Standard Grinder

Over
20,000
in
Use

For Capacity,
Durability and Economy

YOU CANNOT DISCOUNT THE VALUE OF EXPERIENCE

Time-tested and proved for 20 years, the "JAY BEE" all-steel hammer mill has always been the leader in capacity, endurance, and economical grinding. Don't be satisfied with less than the best—when the best is the cheapest in the long run. Abundant proof of "JAY BEE" leadership should convince you that it is the grinder you should own. Write for this proof at once.

Sizes and styles from 12 H. P. to 125 H. P., with belt, V-belt and direct-connected drives.

Molasses Mixers

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Write for detailed description, prices, terms

J. B. SEDBERRY, Inc.

JAY BEE SALES CO., Kansas City, Mo.

Dept. 76, Franklin, Tenn.



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with parts manufactured especially for that particular loader; they fit better and wear longer than those made by the local tinsmith. We have original patterns for all repair parts for all loaders, including the Old King, Mattoon, Kelso, old-style Boss and the present model.

Buy standard parts only. To save time send a rough sketch, giving complete dimensions of the part, with your order.

The Pneumatic Grain Machinery Corp.

Dayton, Ohio

Manufacturers of the BOSS and KELSO Carloaders and Grain Cleaners

Duplicating Scale Ticket Book

A labor saving scale ticket book in which the buyer keeps a carbon copy of the entries made on every scale ticket issued, so altered or spurious tickets may be readily detected.

This book contains 200 leaves, 100 white bond, machine perforated leaves bearing 800 tickets of form shown, interleaved with 100 blank manila sheets. Supplied with 4 sheets of No. 1 carbon paper, size 8½x11 inches. Order Form 62. Price, \$1.45, f. o. b. Chicago. Weight, 3 lbs.

Cash with order for twelve books earns 10% discount.

Bought of _____ 19____	
Load of _____	
Price _____ per cwt.	Gross _____ lbs.
Price _____ per bu.	Tare _____ lbs.
Driver—On. Off.	Net _____ lbs.
	Net _____ bu.
	_____ Weigher.

One-fourth actual size.

GRAIN & FEED JOURNALS Consolidated
332 So. La Salle St., Chicago, Ill.

GRAIN & FEED JOURNALS

CONSOLIDATED
INCORPORATED

332 S. La Salle St., Chicago, Ill., U.S.A.

Charles S. Clark, Manager

A merger of
GRAIN DEALERS JOURNAL
Established 1898

AMERICAN ELEVATOR &
GRAIN TRADE
Established 1882

THE GRAIN WORLD
Established 1928

PRICE CURRENT—GRAIN REPORTER
Established 1844

Published on the second and fourth Wednesdays of each month in the interests of better business methods for progressive wholesale dealers in grain, feed and field seeds. It is the champion of improved mechanical equipment for facilitating and expediting the handling, grinding and improvement of grain, feeds and seeds.

SUBSCRIPTION RATES to United States, Canada and countries within the 8th Postal Zone, semi-monthly, one year, cash with order, \$2.00; single copy current issue, 25c.

To Foreign Countries, prepaid, one year, \$3.00.

THE ADVERTISING value of the Grain & Feed Journals Consolidated as a medium for reaching progressive grain, feed and field seed dealers and elevator operators is unquestioned.

Advertisements of meritorious grain elevator and feed grinding machinery and of responsible firms who seek to serve grain, feed and field seed dealers are solicited. We will not knowingly permit our pages to be used by irresponsible firms for advertising a fake or a swindle.

LETTERS on subjects of interest to those engaged in the grain, feed and field seed trades, news items, reports on crops, grain movements, new grain firms, new grain elevators, contemplated improvements, grain receipts, shipments, and cars leaving grain in transit, are always welcome. Let us hear from you.

QUERIES for grain trade information not found in the Journal are invited. The service is free.

CHICAGO, ILL., APRIL 8, 1936

BEWARE of bargain seeds offered by truckers.

SEABOARD terminals should be cheered by the Bureau of Agricultural Economics' forecast of renewed wheat exports out of a promised crop of 800,000,000 bus.

WHEN oats refuse to flow after having been undisturbed in a bin for a long time caution must be observed in digging into the mass, lest the sudden free access of air fan heating grain into flames.

BURGLARS are getting either bolder or stronger, as evidenced by the fact that a 600-pound steel safe with all its contents was taken from an Ohio elevator office recently and hauled away in a motor truck.

THE MANY ACCIDENTS to elevator workers reported in the Journal each month give emphatic proof of the urgent need of safeguarding all moving machinery and thereby protecting the lives and limbs of the elevator workers.

ADULTERATION of feedstuffs is not so common as formerly, judging by annual reports of state feed control officials. Feed mixers who are uncertain of the ingredients or their finished product may profit by having tests made by a commercial testing laboratory.

THE COLLAPSE of old wagon scales of small capacity still in use is of such frequent occurrence, one wonders why any grain merchant having money invested in elevator facilities will court damage suits by using obsolete facilities when the installation of up-to-date scales would attract more business and safeguard his working capital against incorrect weights.

THE GRANTING of an allowance for washing smutty wheat purchased by the government in the Pacific Northwest should be an encouragement to millers and terminal elevator operators to install the necessary equipment. As is proper, these discounts which are those of the Portland Merchants Exchange, are passed back to the wheat grower in the price paid for the smutty grain that he inefficiently produces.

IN ANNOUNCING the discontinuance of all retail sales, a Pacific Coast grain and milling firm said: "The intricate accounting necessary to satisfy state and federal government requirements, together with the multitude of separate taxes, make it inadvisable to operate a retail business in connection with a manufacturing plant whose principal outlet is at wholesale." Another bill for the consumer to pay.

WHILE one branch of Congress is passing a bill hitting at splitting of commissions with chain stores another branch is about to take up the commodity exchange bill that will permit the Farmers National Grain Corporation to split the commissions that members of the grain exchanges are required in fairness to charge on all sales of carloads of grain. Is it possible that competition has cut the profits of grain handling at terminals to the point where the grain corporation must resort to chiseling?

LIQUIDATION of the government-owned cotton, as now planned, follows the Federal Farm Board wheat precedent of getting out at a loss. Altho the politicians in control could sell the cotton owned by the government in the open market they prefer to toy with the farmer by selling cotton back to him at 11¼ cents, tho 12 cents was lent, the obvious purpose being to mislead the grower into believing he is getting a benefit. The benefits appear to have been limited to foreign cotton growers, the Bureau of Agricultural Economics this week reporting that Southern Brazil has increased its crop of cotton 48 per cent over last year's. How helpful.

THE EXPLOSION of a gasoline engine in an Illinois elevator, knocking down an elevator worker who was trying to start it, again emphasizes the advantage of inspecting and overhauling power facilities at least every six months.

CO-OPERATION by different agencies in Pacific Northwest states toward drafting a uniform law for warehousing grain at country stations is a step in the right direction. The body in charge seems to be devoting adequate consideration to the problems involved.

GRAIN AND FEED men continue to be relieved of their cash by the "check artist," who is still playing the old game of "buying" some grain or feed, paying for it with a check larger than the amount required and receiving the difference in cash from the unsuspecting dealer. One Iowa feed man thus donated \$7 recently to a stranger, who said he would return later for the feed. He did not return but the check he gave did, with the notation on it "No funds."

CAREFUL INVESTIGATION of elevator fires during the last year has disclosed so many incendiary fires, elevator owners have naturally exercised greater vigilance in watching their property. The successful prosecution and punishment of many of the offenders does not seem to have served as a permanent check on arson. One North Dakota town which has lost two elevators this year is up in arms and everybody is out to catch the culprit. That they will succeed is the earnest wish of every property owner and the co-operation of all citizens is quickly given.

RULE by whim of bureaucracy was hit hard by the United States Supreme Court Apr. 6 in *Jones v. Securities Commission*, when it said "To the precise extent that the mere will of an official or an official body is permitted to take the place of allowable official discretion or to supplant the standing law as a rule of human conduct, the government ceases to be one of laws and becomes an autocracy." We have this very situation in the Grain Futures Commission, where the sec'y of agriculture is one of the three combining all functions of judge, jury and executioner.

LAST YEAR the corn growers of the U. S. A. gathered over 2,202,000,000 bushels of corn from an acreage reduced by Government contracts and bonuses. It would be interesting to know how much would have been produced on the same restricted acreage had each farmer planted Wallace's Hi-Bred seed corn exclusively. Regimenting the corn growers' activities doubtless greatly increased the demand for fertilizers and high yielding seed, but this was not the original purpose of the Government's campaign for scarcity or its new demand for reduced loss of soil through erosion.

Rash Government Forecasts

The more intelligent of our citizens understand that the government's forecasts of the harvests are no more than the guesses that the officials represent them to be. The average man, however, confounds governmental power with knowledge, which is error. Altho the government has vast power to tax, destroy, make war and punish it has no knowledge of the future, and any acceptance of its long-range forecasts of crops may seriously mislead the uninformed.

Crops are largely contingent on the weather, and the bureau that has specialized in weather forecasting refuses to forecast the weather more than a few days in advance.

This week the government forecasts that 22,440,000 acres of spring wheat will be harvested. Harvested, mind you, not planted. This seems rather too much of a strain on the credulity of the gullible. This same government two years ago forecast in March that the acreage harvested would be 18,594,000, when it turned out after the lapse of several months the actual harvest was only 9,281,000 acres, the forecast being just 100 per cent wrong.

The government will be going far enough if it contents itself at this time of year to guessing how many acres the farmers intend to plant.

Real Values Shrink When Railroads Discontinue

During the past year many municipalities have been greatly disturbed by the loss of their dependable transportation to the outside world, and now a number of communities depending solely on the M. & St. L. Railroad are hysterical over the prospective discontinuance of a line that has been losing money steadily for many years. Yes, the trucks, the buses and the automobiles have been contributing factors, but the communities affected have become excited over their loss somewhat tardily.

Representatives of over 100 towns and cities located in different states are conducting a valiant fight to save their favorite railroad from extinction, although they did not consider the interest of their best tax payer when using the highways for transportation.

When the railroads were built many years ago their coming greatly increased the value of all property in every community served, and now that this railroad is to be discontinued the property will lose much of the value given it by dependable transportation facilities. It should not be difficult for the average citizen of an abandoned town to discover the true cause of its disintegration. In most counties the railroad is the largest contributor to the cost of Government, and it is perfectly natural when operations cease to be profitable, the railroad should

appeal to the I. C. C. for permission to discontinue.

If the communities which are served by the M. & St. L. have no further use for the transportation service it offers them, they should not raise any objection to its discontinuance. In recent years they have not patronized its rails sufficiently to pay the cost of maintenance and operation, and it is doubtful if they will do so in the future, even though the I. C. C. forbid the abandonment of its rails. If the rails are torn up many grain elevators will be put to the necessity of establishing a line of trucks to get their grain to market.

The Feed Sellers' Responsibility

A cheap, inefficient magnetic separator is the most extravagant investment the deluded feed grinder ever makes. He knows that a desirable separator will reduce his power bill, prolong the life of the plates and his mill and correct operating hazards, yet he permits the maker of the worthless substitute to swindle him. The courts have assessed damages against enough purveyors of feed used with injury or death to valuable livestock to fill all feed grinders with extreme caution.

Tramp iron has not been included in any feeding formula yet the volume of iron removed by every standard separator is sufficient to kill a flock of valuable animals every week. No feed grinder intentionally mixes iron, stones or other indigestible material with his feed, yet much of it comes to him in the grain and his first duty to his customers is to take every precaution to remove *all* foreign matter *before* grinding. Leaving it in the feed makes the seller liable to the buyer for injuries resulting from its use as feed, in all cases of implied warranty of fitness of feed. A judgment in favor of a poultry farm against the Newtown By Product Mfg. Co. was affirmed by the Court of Appeals of New York because it was proved steel wire had been ground with the feed that killed several thousand ducks of the Pine Grove Poultry Farm Inc.

T. A. Bray got judgment for \$500 against Heid Bros. Inc., in the Court of Civil Appeals of Texas for nails and tacks in oats feed bot from Heid Bros. The court held the two horses were killed through the negligence of Heid Bros.

Roy Keller got judgment against the Moorman Mfg. Co. for \$725 damages on account of blue vitriol in feed, in the Supreme Court of Indiana.

Olaf Larson got judgment against the Farmers Warehouse Co., in the Supreme Court of Washington for poison in hay.

Seller's implied warranty of fitness of feed held applicable in action for death of horse, where use of feed began immediately and, on second day after its receipt, horses became sick.—Judd V. H.

S. Coe & Co. Supreme Court of Errors of Connecticut. 169 St. Alt. 270.

Other decisions along the same line place the burden on the purveyor of feed to know that what he sells is fit for feed.

"Middlemen Have Been Abolished"

The above laconic message sent by Dictator Mussolini to Italian wheat growers reflects the common attitude of all autocrats, who fail to recognize the real service performed by the middlemen.

The Italian farmers have been instructed to bring their wheat to the Government warehouses and the millers will go to the warehouses for their supplies. In other words a lot of lazy bureaucrats without any knowledge of grain or experience in handling it will be entrusted with classifying, cleaning and saving from deterioration the country's most valuable food product. Naturally the novices will make many expensive blunders and before the first crop reaches the consumers, the extra cost of marketing the wheat through these bungling tyros will amount to several times what it would have cost to market it through long established channels, manned by men of experience who were forced by the hazards of ownership to handle every lot quickly and efficiently.

Nationalizing or regimenting any industry may look easy to the bureaucrats who are ever eager to tell the specialists in that line where to head in, but it is too much to expect the meddlers to attain even mediocre results. Throughout the world, wherever government has attempted to serve in any capacity it has made for waste, inefficiency and extravagance and Italy's service as a middleman can not be expected to attain different results.

Any business enterprise like the T.V.A. Shipping Board, the Warrior Barge Service, the Farmers National Grain Corporation or any bureau, commission or corporation that must depend upon the Government treasury to continue in business is a flop and unworthy of the taxpayers support. Its continued dependence upon the government for help proves its inefficiency and inability to justify its existence. The government may crowd the enterprising private middlemen out of business, but it will not improve the service rendered or reduce the cost of marketing to the Italian public.

Private enterprise supported by experience and individual initiative is stimulated by the promise of reward to develop new and perfect old services. Placing the marketing of any commodity in the hands of governmental agency never has improved the service or reduced the cost, and no factor in the autocratic order of Il Duce presages better results for anyone interested other than the bureaucrats employed.

Basing Point Bill Impracticable

Under the Basing Point Act as proposed in Congress every distributor and manufacturer would be compelled to add freight to destination in quoting delivered prices. He could not use the profits on business in nearby territory reached at low transportation cost, to sell below cost in competitive territory at a distance. The shipper would have to become a traffic rate expert or hire a man to figure the freight rate on every small sale.

Theoretically the anti-basing point bill has much to recommend it. Practically it would upset nearly all industry. Many mills and factories would have to be torn down and rebuilt in new locations. Fluctuating rates quoted by trucking concerns would add to the uncertainty and confusion.

Certainly there is no element of public interest involved that warrants such an interference with a manufacturer's business methods. The manufacturer enjoys no franchise. He has no monopoly created by law such as that of a transportation company. Not being protected from competition by law he should be left free to fight his way as best he may against his competitors, by making such prices as will get him the business he needs to keep going.

Praiseworthy its principles may be yet the bill is impracticable.

Purchasing Compliance with Unconstitutional Crop Control

Altho the federal bureaucrats never had any right to control the acreages devoted to crops, the Supreme Court decision against the AAA merely confirming what was the fact, they have been willing to resort to bribery to accomplish their unlawful regimentation of the farmer.

A single plantation in Hawaii was paid \$1,022,037 and a Florida planter \$1,067,665 wrung from consumers by the sugar processing tax. In Puerto Rico 28 planters were subsidized to the extent of \$5,000,000.

The picture presented is one of the AAA helping big business to rob the consumer by artificially raising the price of a necessary food.

All this acreage reduction of cereal crops has been harmful to all handlers of the grains. All along the line from the country grain elevator, the railroad and the empty terminal elevator the volume of traffic has been cut down, resulting in unemployment, especially marked in the diminished personnel of the stock yards.

Increased grain production spells prosperity for the grower as well as the grain handler. The grain grower on poor soil poorly equipped has no more right to stay in business than has the country dealer whose grain elevator is so poorly designed

and inadequately equipped that he can not handle grain on a reasonable margin. The law of *laissez faire* would drive both into more profitable activities.

Licensing Commission Merchants

The Government seems to recognize no limit to the amount of regulation and regimentation business can bear and all oblivious of the fact that business must pass every tax, every new burden on to the consumer or surrender to the sheriff, the state and Federal Governments continue to enact new legislation providing for regulations and limitations that are a direct burden on the producers and consumers, but of no real help to either.

The Illinois laws authorizing the State Agricultural Department to license commission merchants dealing in farm produce has been upheld by the State Supreme Court. The purpose of the law was probably to handicap the sharpers who may have been imposing upon farmers, but instead of placing a real check on the swindlers and short change artists, they are taxing and burdening merchants who are accustomed to conducting an honorable business, and the sharpers continue their old practice as before. When caught they go around the corner, open up under another name and continue their sharp practices. Our modern effort to discourage uncommercial conduct has an opposite effect to that intended because, the merchant who as a rule is a fair dealer is punished while the swindler goes free just as before.

To discourage sharp and swindling practices, laws should be enacted punishing severely those indulging. It is not necessary to establish a bureau, board or commission and employ a large number of lazy bureaucrats in any line of commercial activity in order to discover the swindlers. Provide a heavy fine and imprisonment for those indulging in swindling practices and reward sufferers with damages amounting to double their losses, then the swindlers would refrain from misrepresenting, false deliveries and fraudulent practices. The present practice may help to reward party workers, but it does not correct bad practices. If commission merchants did not have high business ideals and conduct their busi-

ness honorably, they would surely be quickly exposed by expulsion from their exchange. Merchants as a rule are honest and they know that if they do not deal fairly or honestly with their customers they soon lose them.

Carriers Must Cooper Cars

The suit filed by 12 railroads at Kansas City to recover \$1 per car for putting in the grain doors ought not to be pressed by them, since no justification exists for the charge. The amount involved at Kansas City is \$60,000, and if pressed at other terminals on the same tariff would total more than \$1,000,000.

The Western lines filed a tariff naming 44 terminal markets from Duluth to Galveston, from Memphis to Denver, at which the railroad company "would act as agent for the shipper to install grain doors at terminal elevators at a charge of \$1 per car."

A good man can install doors in three cars per hour, so a charge of 20 cents would be ample; but it is to the interest of the railroad company to have the door installed in a leak-proof manner to avoid claims for loss of grain in transit, so that no charge whatever should be made for this service. The doors are supplied without charge, as is proper, being as much a part of the car as the wheels.

The Eastern lines never filed the tariff providing for the \$1 labor charge, evidently sensing its injustice; but some bureaucrat at Washington discovered that the Western roads were not collecting the charge as per tariff and urged collection. At the hearings on the justice of this charge that are to be held at various points beginning May 20 it is hoped the Commission can be persuaded to cancel the unreasonable tariff.

COUNTRY GRAIN buyers who write on face of check issued to farmers for grain the sentence "In full payment for grain which is free from liens," protect themselves from many unexpected liens. In indorsing checks to get money the farmer agrees to the statement on the face of the check and if his grain is not free from liens as is stated, then he has misrepresented his ownership and is liable to prosecution for fraud and deception.

SMILE and the world smiles with you; knock
and you go it alone; for the cheerful grin
will let you in where the kicker is never known.

Asked—Answered

[Readers who fail to find trade information desired should send query for free publication here. The experience of your brother dealers is worth consulting. Replies to queries are solicited.]

Quick Method of Testing Flaxseed?

Grain & Feed Journals: How can we secure a copy of the new method of testing flaxseed described on page 177 of the Journals?—Iowa Milling Co., Cedar Rapids, Ia.

Ans.: The test is described fully in Department Bulletin No. 1471 of the U. S. Department of Agriculture, sold by the Superintendent of Documents, Government Printing Office, Washington, D. C., price 10 cents.

How Does New Law Affect Grain in Store?

Grain & Feed Journals: When does the Illinois country warehouse law go into effect? How does it affect grain that has been stored for several months, and drawing storage? I have some stored since threshing time drawing storage at the rate of 1 cent per bushel per month after the first thirty days. Market is bad now and one hates to compel the farmer to sell now. What would you advise?—A. Theo. Peterson, Malta, Ill.

Ans.: The effective date of the new Illinois law was taken up with the Chicago and Springfield offices of the Illinois Commerce Commission having jurisdiction of licensing warehouses under the law; and it was stated the law, as amended, would go into effect July 1.

However, no penalty is likely to follow holding grain already in store pending owner's orders.

Accepting grain for storage, to be mixed with other's grain, after July 1, is punishable by fine of \$5,000 or 6 months' imprisonment of a warehouseman not possessing a license.

Does State or Federal Warehouse License Take Precedence?

Grain & Feed Journals: Does the federal warehouse license for storage of grain take precedence over the new Illinois state warehouse law? Our understanding is that an Illinois elevator operator, operating his elevators under a federal warehouse license need not take out a state license. Have there been any legal decisions covering the same problem in other states that have state warehouse laws?

We also would like a brief synopsis of the Illinois warehouse law as finally passed.—Rudy-Huston Grain Co., Paris, Ill.

Ans.: The Illinois state law regulating all warehousemen storing grain for others is compulsory. The federal warehouse act is voluntary.

Local warehousing is not interstate commerce. Consequently the federal government is without power to compel local warehousemen to operate under a federal license, and has not attempted to do so.

A warehouseman in Illinois can not exempt himself from the state law by taking out a federal license. The law is so new there have been no decisions on this point; and in other states having warehouse laws no decisions have been rendered covering this point.

The new Illinois law was summarized on page 184 of Mar. 11 number of the Journals, under caption "Illinois Country Elevators May Charge for Storage."

The federal warehouse act was not intended to supersede state law, but to provide protection for receipt holders in states having no provision for bonding the warehouseman. Warehouse certificates issued by a warehouseman licensed under the United States Warehouse Act are good collateral for loans at a national bank.

The only effect of the new Illinois law as to terminal elevators in such large cities as Chicago is that the amendment abolishes the penalty that was provided for a public warehouseman who bought and sold grain in his own warehouse.

Western Ass'n at Sioux City

The Western Grain & Feed Dealers Ass'n has a most attractive program for its 36th annual convention and extends an invitation to all members of the trade including independent dealers, farmers, elevators and line elevators, also receivers, track buyers and supply houses to attend. Sioux City's advantageous location and the special entertainment offered by the Grain Exchange will insure a large attendance.

The meetings are to be held in the main ballroom of Hotel Martin, starting at 9 a. m., April 22, at 1:30 p. m. the afternoon of the 22nd, with a banquet to be held the evening of the 22nd.

A meeting starting at 9 a. m. in the main ballroom of the Martin on April 23, will adjourn and go to the trading floor of the Sioux City Grain Exchange at noon to be the guests of the Exchange for lunch and afternoon fellowship, ladies to be entertained during the afternoon of the 23rd while the men are enjoying the stag.

The banquet is to be in charge of the Sioux City Grain Exchange, and the speaker of the evening is to be George E. Farrell, director of the Division of Grains of the A.A.A., Washington, D. C.

His subject is "Agricultural Problem Through Soil Conservation."

On the tentative program for the regular sessions are the following:

Frank Theis, president of Simonds-Shields-Lonsdale Grain Co. of Kansas City, also chairman of the Committee on Truck Regulation of the Southwest Grain Ass'n. His subject will be "The Trucking Problem and Suggestions for Solution through the United Effort of the Members of the Grain Industry."

S. W. Wilder, President of the Wilder Grain Co. of Cedar Rapids, also president of the Grain and Feed Dealers National Ass'n, will give a message from the National Ass'n including an outline of the national legislative problems in the grain trade.

R. B. Bowden, secretary of the Northwest Country Elevators Ass'n of Minneapolis, will discuss Grain Trade and Taxation.

Thomas B. Huff, president of the Transportation Ass'n of America, will discuss the transportation problem and a suggestion for the co-ordination of present facilities for the benefit of shippers.

E. H. Sexauer of Brookings, S. D., partner of the George P. Sexauer Co., and also a member of the Uniform Grades Committee of the National Ass'n, will discuss the subject, "Recommendations of the Grain Grading Committee."

George Potgeter, Eldora, Iowa, owner of the George Potgeter Grain Co., will discuss the subject of "Accounting Methods for Country Elevators."

Clyde Smith, president of the Western Grain and Feed Dealers Ass'n, has a very interesting message, and in addition has prepared material and statistics of unusual interest and importance in the movement of grain by trucks in Iowa.

Other speakers have tentatively given their acceptance to appear on the program, but their names are not included because definite arrangements have not yet been completed.

The Sioux City Grain Exchange has completed the arrangements for handling the convention, and Mr. J. C. Mullaney, president of the Sioux City Grain Exchange, has named the following committees in charge of affairs:

BANQUET COMMITTEE: C. E. McDonald, chairman; H. L. Jackson, A. P. Meyers.

LUNCHEON COMMITTEE: Paul Larson, chairman; F. O. Lenoir, F. J. Reinelt, R. A. Swensen.

PUBLICITY COMMITTEE: J. B. Roberts, chairman; J. S. Eales, A. D. Doherty.

HOTEL RESERVATIONS COMMITTEE: Gordon M. Smith, chairman; Geo. H. Winters, J. L. Baldwin.

LADIES ENTERTAINMENT COMMITTEE: Mrs. S. P. Mason, chairman; Mrs. J. C. Mullaney, Mrs. C. C. Flanley, Mrs. C. E. McDonald, Mrs. Paul Larson.

Coming Conventions

Trade conventions are always worth while, as they afford live, progressive grain dealers a chance to meet other merchants from the same industry. You can not afford to pass up these opportunities to cultivate friendly relations and profit by the experience and study of others.

Apr. 22, 23. Western Grain & Feed Dealers Ass'n, Sioux City, Ia.

Apr. 23, 24, 25. California Hay, Grain & Feed Dealers Ass'n at the Biltmore Hotel, Los Angeles, Cal.

Apr. 25. Western Seedsmen's Ass'n, Fontenelle Hotel, Omaha, Neb.

May 8. Oregon Feed Dealers Ass'n at Multnomah Hotel, Portland, Ore.

May 14, 15. Illinois Grain Dealers Ass'n, Hotel Jefferson, Peoria, Ill.

May 15, 16. Panhandle Grain Dealers Ass'n, Amarillo, Tex., Herring Hotel.

May 19, 20. Texas Grain & Feed Dealers Ass'n, Fort Worth, Tex.

May 22, 23. Grain Dealers Ass'n of Oklahoma, Youngblood Hotel, Enid, Okla.

May 24. National Farmers Co-op. Elvtr. Assn, Hotel Fontenelle, Omaha, Neb.

May 26, 27. Kansas Grain Dealers Ass'n, Dodge City, Kan.

June 1, 2. Pacific States Seedsmen's Ass'n, Hotel Del Monte, Del Monte, Cal.

June 1, 5. American Ass'n of Cereal Chemists, Adolphus Hotel, Dallas, Tex.

June 8, 9. Central Retail Feed Ass'n, Schroeder Hotel, Milwaukee, Wis.

June 11, 12. American Feed Manufacturers Ass'n, Greenbrier Hotel, White Sulphur Springs, W. Va.

June 12, 13—Pacific Northwest Grain Dealers Ass'n, Lewiston, Ida.

June 12, 13, 14 and 15. Society of Grain Elevator Superintendents of North America, at Duluth June 12 and 13, and at Minneapolis evening of June 13, and June 14 and 15.

June 16-17. Northwest Retail Feed Ass'n, West Hotel, Minneapolis.

June 22. New York State Seed Ass'n at Syracuse, N. Y.

June 22, 23. Ohio Grain, Mill & Feed Dealers Ass'n, Cedar Point, O.

June 25, 26, 27. Southern Seedsmen's Ass'n at Dallas, Tex.

June 29. Farm Seed Group of A. S. T. A. at Dallas, Tex.

June 29, 30 and July 1. American Seed Trade Ass'n at Dallas, Tex.

Oct. 12, 13. Grain and Feed Dealers National Ass'n at Hotel Schroeder, Milwaukee, Wis.

Texas Ass'n to Celebrate 40th Anniversary

Celebration plans for the 40th anniversary of the Texas Grain & Feed Dealers Ass'n are going forward at Fort Worth where the annual convention will be held May 19 and 20. The anniversary figured in the selection of Fort Worth where the ass'n was organized 40 years ago, as the convention point.

Pres. W. L. Newsome of the Fort Worth Grain & Cotton Exchange, promises a lively convention, with enjoyable entertainment for all who attend.

Sec'y G. E. Blewett of the Ass'n, promises an interesting convention program, filled with discussions of subjects vital to the grain and feed trade, and extends a cordial invitation to be present to "all engaged in growing, shipping, buying, or milling grain and manufacturing mixed feed or grain products, whether members or not."

Canadian Mills ground 4,614,569 bus. of wheat during February against 4,220,917 bus. during February, 1935, as reported by the Dominion Bureau of Statistics.

United Grain Growers Port Arthur Elevator

Outstanding as an efficient, modern, thoroughly mechanized storage unit the 5,500,000 bu. reinforced concrete elevator of the United Grain Growers at Port Arthur, Ont., has played an important part in the movement of the Dominion wheat crop each year since it was built. Its work house, two storage annexes, trackshed, general offices and drier house, take up 1,200 ft. of dock space along a transfer and loading slip, dredged deeply to admit the largest of lake vessels.

The 79x158 ft. workhouse that rises 201 ft. in the air, has storage space for 500,000 bus. and many wide windows to reduce the dust explosion hazard.

Each of three receiving legs in the head-house can elevate 20,000 bus. of wheat per hour. Car dumpers make short work of unloading cars.

Port William and Port Arthur elevators clean grain immediately after it is weighed. This elevator is equipped with a long battery of cleaners and separators, and with 10 legs that are used for nothing but clearing the screenings and tailings from these machines. This movement of wheat direct from the receiving hopper scales to the cleaning machines, before placing it in permanent storage, eliminates waste motion in the cleaning operation, and reduces costs to a minimum.

Dust is a hazard in any concrete terminal elevator. For this reason great care is used at all points in the elevator where dust occurs, to provide collecting suction pipes, and 28 large dust collectors are arranged along the outside of the elevator over the track shed. All leg heads, garners, and scale hoppers are vented thru the roof.

Beyond the 110x108 ft. track shed are six stub tracks that can hold 120 loaded cars. A slight decline in these to the track shed reduces the work of the car puller in handling cars.

Each of the two storage annexes, exactly alike in construction, is 375 ft. long, 99 ft. wide and 124 ft. high, having capacity for 2,500,000 bus. in four rows with 14 cylindrical bins in each row. Each of these bins is 23 ft. in diameter and 100 ft. deep. The Port Arthur elevator of the United Grain Growers, Ltd., serves a long line of country elevators. A striking view of the shipping side of this modern elevator is given on the outside front cover.

Commodity Markets and the Consumer

The consuming public, which supplies the purchasing power for farm products, is amply protected by commodity markets.

This conclusion was reached by Professor Elmore Petersen, dean of the school of business administration, University of Colorado, who recently conducted a group of sixty-seven students in a week's tour of Chicago market places. Similar delegations from the University of Iowa and the University of Minnesota also made a similar investigation. "An outstanding impression of our visit," Prof. Petersen stated, "is that both consumers and shippers of foodstuffs are protected by the great markets developed at Chicago."

"The buyer can inspect the quality of fruit offered for sale by handling the article itself. This, of course, is true also of the cash grain market. On the futures markets, such as those of the Board of Trade, rules governing deliveries on contracts reached in the pits are guarantee that commodities of a known standard set up by the Federal government are delivered to the buyer."

"I was impressed on the Chicago Board of Trade that the best quality of cash grains

are marketed at premiums which amply reward the grower. The existence of such exchanges guarantees better returns to the farmer through improved production. And at the same time offers a more desirable article to the consuming public."

Grading of Oats

Of 49,359 cars of white oats arriving at terminal markets from July 1, to Jan. 1, 1936, 1,072 were graded No. 1, 5,887 No. 2, 24,399 No. 3, 14,899 No. 4 and 3,102 sample, as reported by the federal grain supervision.

Of 2,738 cars of red oats received 250 graded No. 1, 534 No. 2, 959 No. 3, 858 No. 4 and 137 sample.

Cedar Rapids received 3,339 cars of No. 3 white oats, while Chicago received 2,468 of No. 3. Out of 12,307 of all grades of white oats received at Minneapolis 6,528 graded No. 3. Out of a total of all grades of white oats of 6,622 received at Chicago 2,202 graded No. 4. Chicago also received more sample grade than any other market.

Warehouse Regulations Outlined in Pacific Northwest

The Pacific Northwest Grain Dealers Ass'n has a general com'ite on Uniform Warehouse Laws developing legislation to satisfy all sections of the Pacific Northwest grain growing districts. Oregon, Idaho, Washington and Utah are represented on this com'ite of which H. R. Raymond, Spokane, is chairman, Ron Kennedy, sec'y. Other members of the com'ite are S. C. Armstrong, Seattle, Wash.; Chas. M. Cook, Spokane, Wash.; Paul G. Ostroot, Portland, Ore.; James H. Shields, Jr., Buhl, Ida.; F. S. Gwilliam, Weiser, Ida.; V. P. Campbell, Ogden, Utah; Louis J. Kelly, The Dalles, Ore., and state warehouse supervisors or auditors E. L. Sammons, Washington; Charles Wright, Oregon; and George Daubner, Idaho.

The general com'ite tentatively agreed that a complete new law which would require repeal of old laws should be drafted for passage by the state legislatures; that no provision relating to merchandising should appear in the new law; that charges should be fixed by warehouse tariffs filed with and subject to the approval of the department of agriculture in each state; that the state should have the responsibility of taking action in cases of default on warehouse bonds; that the law should require strict separation of warehousing and merchandising accounts and records; that the state departments of agriculture be authorized to take control of a warehouse that violated the law. To work out the details for such legislation Chairman Raymond named a sub-com'ite composed of Mr. Armstrong, Mr. Ostroot and Mr. Shields. This com'ite has been meeting with officials and leading grain dealers of each state to work out localized problems.

Another meeting of the general com'ite is expected to be held in Boise, Ida., at an early date to consider first drafts of the proposed legislation for presentation to the trade.

Corn grinding by domestic plants of the Corn Products Refining Co. has been at the rate of 34,000,000 bus. per annum during the first quarter of 1936, compared with 27,000,000 bus. in 1935, and 29,000,000 bus. in 1934.

The National Labor Relations Act was held unconstitutional by Judge John P. Barnes Mar. 24 at Chicago in the injunction suit brought by the Bendix Products Co., resisting an order of the board that an election be held to determine whether in collective bargaining the employees should be represented by a company union or the American Federation of Labor. The law deprives the individual of his right to contract in violation of the fifth amendment to the constitution, said the court.

Confirmation Blanks

Simple - Complete - Safe

If you would avoid trade disputes and differences, and prevent expensive errors, use triplicating confirmation blanks. You retain tissue copy, sign and send original and duplicate to customer. He signs and returns one and retains the other.

This places the entire burden for any misunderstanding of your intentions upon the other party and protects you against the expensive misinterpretation of your trades.

The use of these confirmations makes for safer business. Spaces are provided for recording all essential conditions of each trade.

Fifty confirmations in triplicate, bound with pressboard and wire stitched, size 5½x8". Order Form No. 6 CB. Weight, 9 oz. Price 75c; three copies \$2.00, plus postage.

Grain & Feed Journals

CONSOLIDATED

332 South La Salle St., Chicago, Ill.

Truck Loads to Bushels

Direct Reduction Grain Tables on cards reduce any weight from 600 to 12,090 lbs. to bushels of 32, 48, 56, 60, 70 and 75 lbs. by 10-pound breaks. Just the thing for truck loads.

Printed from large clear type on both sides of six cards, size 10¾ x 12¾ inches with marginal index, weight 1 lb. Price, \$1.25, plus postage. Order 3275Ex.

Grain & Feed Journals

CONSOLIDATED

332 So. La Salle Street
Chicago, Ill.

Letters from the Trade

[The grain dealers' forum for the discussion of grain trade problems, practices and needed reforms or improvements. When you have anything to say of interest to members of the grain trade, send it to the Journals for publication.]

Heavy Musty Oats Grade Low

Grain & Feed Journals: With all the bureaucratic monkeying with the grain grades to which the grain trade, and the farmers had become accustomed, the grain grading division failed to consider the plight of the fellow who has heavy oats when most of the oats in the country are light, but finds them carrying a slight musty odor, conceivably ground odor, or straw odor instead of must.

Not long ago we shipped a carload of oats to one of the primary markets that graded No. 3 in every respect, except that they carried a slight odor. The terminal inspector graded them Sample because of the odor.

Had these oats been graded "No. 3, musty" we feel we would have small kick coming. Undoubtedly they would have brought a better price from someone who had need for heavy oats. But with all the special grades devised by the grain grading division of the Department of Agriculture to cover moisture, and weathering, by notations on the grading certificate, oats with a slight odor have not been given a fair break.—Central Illinois Dealer.

Want Public Grain Markets Free from Bureaucratic Control

Grain & Feed Journals: Under the misrepresentation that there is need for new legislation to regulate grain exchanges, the Farmers National Grain Corporation, a remnant of the Farm Board's demoralization of the farmer's market for grain, is flooding the country with propaganda urging passage of the Commodity Exchange Bill.

It is generally known that this so-called co-operative has a selfish purpose in trying to get this bill passed. The real reason is that this unnecessary and harmful legislation contains provisions which will give Farmers National added leverage to force co-operatives and others who want to do their business independently and follow just and fair trade practices to pursue business policies placing many at serious and unfair advantages.

In letters to the country, desperate appeals are being made to bring pressure upon the senators of each state to force this legislation through this session of Congress.

So that members of the senate may be assured that such selfish outbursts have been inspired by the Farmers National Grain Corporation, we *urgently* ask you to write, and ask your farmer patrons to write also, stating your views in short letters to *each* of the two senators in your state and particularly to Senator Joseph T. Robinson. Address all three of those senators at Washington, D. C. Emphasize the following facts in your own words:

That such legislation as the Commodity Exchange Bill is not necessary and that the supporters of this measure do not speak for the farmer or the grain industry.

That the real reason the bill's sponsors want it passed is to permit special privileges to this group only.

That the Farmers National Grain Corporation does not speak for, or represent the vast majority of true co-operatives and farmers' elevators. The Farmers National is constantly flooding the country with such propaganda to serve its selfish interest.—J. N. Campbell, Sec'y, Nebr. Grain Dealers Ass'n, Omaha, Nebr.

A Protection Against Liens

Grain & Feed Journals: I notice long form recommended for stamping on back of checks issued to farmers in payment for grain in hope of protecting buyer from liens on grain bot. While I would not stamp such a statement on checks issued to most of my farmer patrons, I believe it helps to make others more cautious. The short form I use is just as effective as the long form recommended on page 218 of the Journals for March 25th. It is as follows: "Accepted in full payment for my grain which is free from all liens." I have not been asked to pay for any grain a second time since I started to stamp this statement across left end of back of check.—N. R. Freeze.

Seed Loans Botched

Grain & Feed Journals: Not over one-half the seed wheat needed is left on the farms because the seed loans came in so late last spring a lot of farmers seeded so late that their crop was nothing but chicken feed. The crop was so poor it was sold or fed and it looks like it will be very much the same this spring.

If the government wants to put out money to help the farmers to buy seed wheat why does it not get it out in time? Right now they are making out applications for these loans, and then the bureaucrats will be considering for a couple of weeks whether they are to grant these loans, etc., and by the time farmers get their checks all the seed should be in the ground.

Credit the farmer can not get because no one knows whether or not they will get the seed loan. One-half of the applications are refused for one reason or another; and then they make another application and some more are granted and others refused, so it seems to me this is as much of a humbug as any going.—H. C. Sorenson, mgr., Glentana Grain Co., Glentana, Mont.

Magnetic Separators Pay for Themselves

Grain & Feed Journals: It is the consensus of opinion in our office that 25 to 33½ per cent saving is effected in grinding plates by installing an efficient magnetic separator in grinding for farmers.

The manager of our feed department says that in plants like that at Winchester where we grind all kinds of screenings from other elevators the magnetic separators will save 50 per cent in grinding plates; that is, the plates would last 50 per cent longer and we would have no broken plates resulting from scrap iron getting past the separator.

The saving goes farther than the grinding plates, as in one instance the separator arrested a piece of hardened steel that would have ruined the plates and was capable of damaging the machine itself. The separator saves belting and power where a sudden stop occurs.

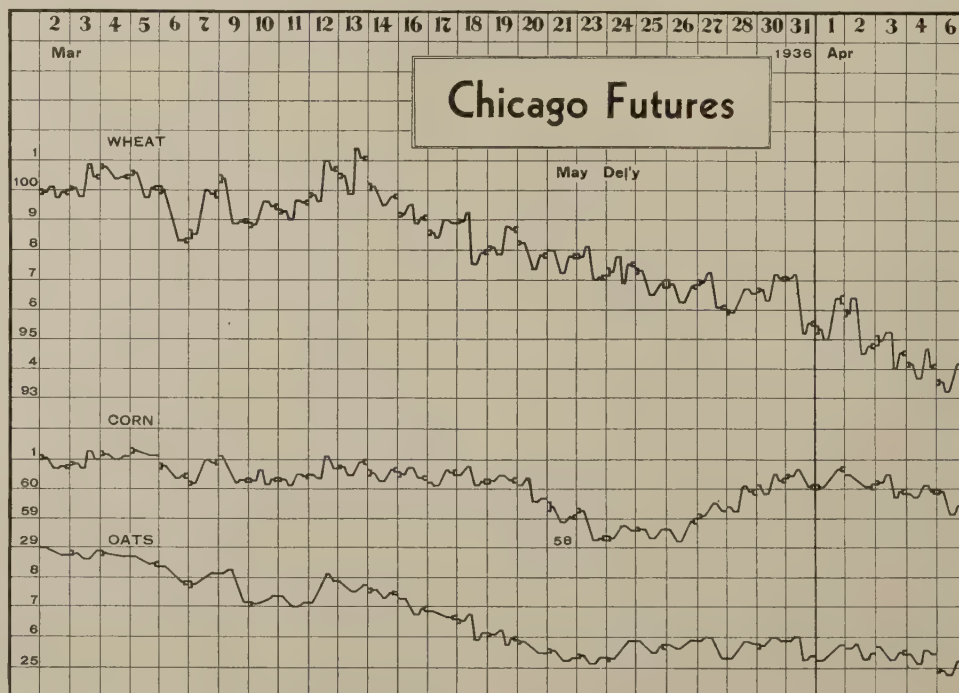
Most vital of all is the assurance that tramp iron has been eliminated from feed sold to poultry raisers. It is a good point in selling feed to be able to point out to buyers the elimination of all particles of iron ground as fine as cornmeal that might prove fatal in the chicken's digestive tract.

We have recently bought 12 magnetic separators and will equip every grinding plant with a separator. We have crushers ahead of our attrition mills and are putting the separators ahead of the crushers.—Goodrich Bros. Co., Winchester Ind.

Minneapolis Holds a Grain Grading School

Heavy enrollment of Minneapolis grain men and their employes entered the grain grading school opening at Minneapolis March 30.

The course was conducted under the guidance of M. J. Johnson, federal grain supervisor, and H. R. Summer, Northwest Crop Improvement Ass'n sec'y. Its lectures and laboratory work covered wheat, durum, and barley, and sought to give local grain dealers the same review of grain grading and growing information that has been presented to country grain dealers of the Northwest in the last five years. The review of grades, identification of varieties and diseases and market needs presented the viewpoint of the farmer and the country elevator manager.



Legislation at Washington

H. B. 9101 places a 50 per cent ad valorem tax on imported bread.

H. J. Res. 535 by Fulmer provides for the refund of taxes collected under the Bank-head Act.

The House Mar. 31 passed the bill allowing an increase in the capital of the Commodity Credit Corporation to \$100,000,000.

The Utterback Bill, H. R. 10486, originally intended to hit chain stores, by its language actually will cover the whole merchandising field. An amendment has been adopted by the judiciary com'te restricting the scope of the bill.

The House judiciary com'te, by a vote of 8 to 6, made a favorable report on the Robinson-Patman anti-price discrimination bill. The bill has been amended to permit advertising allowances, legitimate payments for brokerage services, wholesaler and retailer differentials and quantity discounts.

The House passed the Pettengill bill Mar. 24, by a 215 to 41 vote. The bill authorizes the railroads to disregard the long-and-short haul provision of Sec. 4 of the Interstate Commerce Act. An early hearing is expected before Senator Wheeler's interstate commerce com'te before the bill moves to a vote in the Senate.

The Senate on Apr. 2 passed a bill giving the sec'y of agriculture increased powers over the marketing and slaughter of live stock. Fine of as much as \$5,000 or 5 years' imprisonment is provided for violators, not of law or statute, but of regulations set up at the whim of the sec'y of agriculture. What an autocrat.

Names of all A.A.A. beneficiaries who received over \$10,000 are demanded of Sec'y of Agriculture Wallace in a resolution unanimously reported out by the Senate agriculture com'te Apr. 6. Earlier the com'te had decided to ask for names of all receiving over \$1,000. Senator Vandenberg said "I am glad that Secretary Wallace has changed his mind and now indicates willingness reasonably to co-operate in letting the public know what has become of its money." Mr. Wallace had attempted to satisfy the senators with a list of the larger beneficiaries by commodities but giving no names. Wallace feared that if the names were published the individuals named or their children might be kidnapped for ransom.

The Wheeler anti-price basing point bill was attacked vigorously before the Senate com'te on interstate commerce by J. B. Smith, pres. of the Millers National Federation, who pointed out that the bill would disrupt milling in transit arrangements under which the milling industry has established itself at economical points.

Sam Hill, chairman of the House sub-com'te, said "We decided to eliminate the subject of processing taxes entirely. None of us was keen on processing taxes. We felt we could get close to what the President wanted without having them considered." It is by no means certain, however, that the taxes on 33 farm commodities suggested by the President will not be in the bill as finally enacted.

The Commodity Exchange Bill

A revival of last year's attempt by the bureaucracy to strangle the grain futures markets thru the enactment of the bill amending the Grain Futures Act has been staged at Washington.

Under the present system of free trading on the grain exchanges the local farmers elevator companies and the independent country dealers can do business successfully without having to join the Farmers National Grain Corporation and its state affiliates. If the hedging market afforded by the grain exchanges could be destroyed by legislation this corporation using government funds, would be greatly strengthened and could ignore prices prevailing in the public markets. The corporation maintains an active lobby at Washington, and that it is producing results is shown by the action of Senator James P. Pope of Idaho who said he expected to "act immediately" on a request from Sec'y Wallace that he ask unanimous consent to take up a resolution approved by the House changing the Grain Futures Act into a new commodity exchange act.

Mr. Wallace may not be aware of the ulterior motives behind the propagandists, seeing only an opportunity to grab power and to increase the number of job-holders.

A secret meeting was held in the office of senate floor leader Robinson Apr. 6 in an endeavor to adjust differences between senators so that the bill could be pushed forward. Senator E. D. Smith, the powerful chairman of the Senate com'te on agriculture, is

thoroly well informed on cotton trading and has convinced himself that the proposed regulation holds forth no promise of benefits to the cotton industry. Rather he thinks the bill may harm the cotton industry in which he is interested, and in deference to his sound judgment the elimination of cotton from the commodities to be controlled by the bill has been suggested. When the public markets for farm products are destroyed domestic values will be a perplexing enigma and all dealers will be compelled to work on a wide margin.

Omaha, Neb.—Nels B. Updike, of Updike Grain Corp., returning from South America, said the Argentine expects to sell a large share of its corn crop to the United States this year. "Argentine corn now grown is a flint variety similar to that produced in the Dakotas," said Mr. Updike, "but great interest is being shown in improving available varieties."

Death of Norman C. Ellis

While visiting at Miami, Fla., Norman C. Ellis, pres. The Ellis Drier Co., Chicago, succumbed to a heart ailment from which he had been suffering since last July, and passed away on Mar. 27. He was 47 years old.

Born in Brantford, Ont., July 23, 1888, Mr. Ellis at the age of 7, was brought to this country when his father, Wynn Ellis, moved to Detroit. Later the family moved to Milwaukee, where The Ellis Drier Co. was originated, finally settling at Chicago, where the company developed its full line of direct heat, indirect heat and steam driers for grain.

Mr. Ellis' public school and high school education was followed by an engineering course at the University of Wisconsin. When the War broke out he sought to enlist and was rejected by both the army and the navy, due to a physical handicap. Thereupon he went to Canada, where he was not only accepted for overseas service, but was commissioned a lieutenant in a Canadian engineering corps.

At the close of the War Mr. Ellis returned to the United States to join his brothers, Hubert C. and Wynn B., in The Ellis Drier Co., some time later becoming pres. of the General Laundry Machinery Corp., serving an expanding industry. Four years ago he was made pres. of The Ellis Drier Co.

Surviving are his widow, Sue Ellis, and his two brothers, Hubert C. and Wynn B., who will carry on the traditions of The Ellis Drier Co.

Daily Closing Prices

The daily closing prices for wheat, corn, oats, rye and barley for May delivery at the following markets for the past two weeks have been as follows:

	Option		Mar.		Mar.		Mar.		Mar.		Apr.		Apr.		Apr.		Apr.	
	High	Low	25	26	27	28	30	31	1	2	3	4	5	6	7	8	9	10
Chicago	107	88½	96¾	96¾	97	96½	97	95½	96¼	94¾	94½	94	94½	94¼	94¾	94¾	94¾	94¾
Winnipeg	102½	78½	82½	82½	82¾	82¾	82¾	81¾	81¾	80	79	78¾	79½	79½	79¾	79¾	79¾	79¾
Liverpool	96¾	80½	89½	90	90½	90½	90¾	90¾	91½	90	88¾	89	89	89	89½	89½	89½	89½
Kansas City	108½	88½	95½	95½	95½	95½	96	94½	95	93¾	92¾	92½	92¾	92¾	93¼	93¼	93¼	93¼
Minneapolis	125½	97½	102½	101¾	99¾	101¾	101½	99¾	100½	98¾	98	98½	98½	98½	98½	98½	98½	98½
Duluth, durum	105½	88½	91½	91¾	91¾	91¾	93¾	93¾	93¾	91¾	91¾	91¾	91¾	91¾	91¾	91¾	91¾	91¾
Milwaukee	106¾	89½	96¾	96¾	96¾	96¾	97	95½	96¼	94¾	94¾	94	94¾	94¾	94¾	94¾	94¾	94¾
Chicago	67¾	56	58½	58¾	59½	59¾	60¼	60	60¾	60	59¾	59¾	59¾	59¾	59¾	59¾	59¾	59¾
Kansas City	62¾	56¼	58¾	58¾	59½	59¾	60¾	60¾	61	60¼	59¾	59¾	59¾	59¾	59¾	59¾	59¾	59¾
Milwaukee	66¾	56¾	58¾	58¾	59½	59¾	60¼	60	60¾	60	59¾	59¾	59¾	59¾	59¾	59¾	59¾	59¾
Chicago	37½	24¾	25¾	25¾	25¾	25¾	25¾	25¾	25¾	25¾	25¾	25¾	25¾	25¾	25¾	25¾	25¾	25¾
Winnipeg	35¾	29	31¾	31¾	31¾	31¾	31¾	31	31¾	31¾	30¾	31¾	31¾	31¾	31¾	31¾	31¾	31¾
Minneapolis	29½	23	23¾	23¾	23¾	23¾	23¾	23¾	23¾	23¾	23¾	23¾	23¾	23¾	23¾	23¾	23¾	23¾
Milwaukee	37½	24¾	25¾	25¾	25¾	25¾	25¾	25¾	25¾	25¾	25¾	25¾	25¾	25¾	25¾	25¾	25¾	25¾
Chicago	59	45	52¾	52	51¾	52¼	52¾	51¾	52¼	51¾	52	51¾	52¼	52¼	52¼	52¼	52¼	52¼
Minneapolis	59	42¾	46¼	45¾	45¾	45¾	46¾	46¾	46¾	45¾	46¼	45¾	46¼	45¾	46	46	46	46
Winnipeg	53	40¾	43¾	43¾	43¾	43¾	43¾	42¾	42¼	41¾	41¾	41¾	41¾	41¾	42¼	42	42	42
Duluth	58½	46¾	48	48	47	47	47½	48¾	48	48	48	48	48	48	48	47½	47½	47½
Chicago	40¾	33¾	34¾	34¾	34¾	34¾	34¾	34¾	34¾	34¾	34¾	34¾	34¾	34¾	34¾	34¾	34¾	34¾
Minneapolis	42½	34¾	38¾	39¾	39¾	39¾	39¾	39¾	38¾	38¾	38¾	38	38	38	38	38	38	38

*At daily current rate of exchange.



Norman C. Ellis, Chicago, Deceased

Crop Reports

Reports on the acreage, condition and yield of grain and field seeds, as well as on the movement to country markets, are always welcome.

Hull, Ill., Mar. 31.—Wheat acreage 100%; condition 90. Usual acreage of oats.—Hull Elevator Co.

Aitkin, Minn., Apr. 4.—Snow on the ground here; 2 below zero this morning. No planting as yet.—MacGregor & Dennerly Co.

The Dalles, Ore., Mar. 29.—Grain growers in this vicinity report that they will be obliged to reseed a large acreage of winter wheat in both Wasco and Sherman counties.—F. K. H.

Friend, Neb., Apr. 4.—Wheat acreage 105%, condition 100, none abandoned. Corn acreage 105%, oats acreage 80%.—Acme Mills & Elvtr. Co.

Hardin, Mont., Apr. 2.—Wheat acreage 10% over last year; 50% of winter wheat will have to be reseeded to spring wheat.—Hardin Grain & Fuel Co.

Wakita, Okla., Apr. 1.—Wheat looks good here. Could use some rain. Acreage the same as last year. Oats are coming up to a poor stand.—Alva Roller Mills, G. S. Purdy, mgr.

Chase (Boswell p. o.), Ind., Mar. 31.—Oat seeding about the same as 1935. Corn acreage some larger. Wheat acreage smaller and possibly some will be plowed up.—Farmers Co-op. Co., Ray Roberts, mgr.

Spearman, Tex., Mar. 30.—Present prospects for a fair wheat crop in this territory are good, but must have rain before Apr. 15. Have some bad dust storms which are coming from north and west of us. No wheat or land blowing here.—Ed Larson.

Thomasboro, Ill., Mar. 27.—Farmers have been quick to get into the fields these nice days. A fully normal corn crop will be planted this year, a smaller acreage of oats, an increased acreage of soybeans.—Albert Schaeede, the Thomasboro Grain, Lbr. & Coal Co.

Hamilton, Mont., Apr. 2.—No winter wheat sowed last fall, too dry. Will be lots of spring grain sown this spring, oats, barley and spring wheat, but too early yet to tell how much, too much cold weather up to now.—Hamilton Flour Mills.

Evansville, Ind., Apr. 4.—Reports from various counties in southwestern Indiana say that the growing wheat crop came thru the winter in fairly good condition. Many of the fields look green and the grain seems to be flourishing. The acreage of oats is small.—W. B. C.

Reville, S. D., Apr. 5.—No seeding here yet, too wet and cold. Rye will be all right, came thru the winter O.K. No winter wheat here. Seed corn with high germination very hard to get. Planting this 40-pound wheat does not look good. Lots of good seed, but farmers will not buy.—Farmers Elevator Co., J. F. Denereax.

Lima, O., Apr. 4.—From Chicago to Warsaw, Ind., fields snow covered, but bare from Warsaw to here, showing wheat patchy and sickly from winter damage with conditions somewhat below my expectations. There is plenty of moisture but warmer weather desired. Acreage small and very little old wheat on farms.—H. C. Donovan, Thomson & McKinnon.

Duluth, Minn., Apr. 3.—Favorable moisture conditions and proposed enlarged grain acreage for the Northwest this spring seems to have become a more potent item in the current market picture. With starting soil conditions this year so much better than last year at this time, farmers as well as grain men feel more optimistic than usual over the prospects for the coming crop.—F. G. C.

Greenville, Ia., Apr. 1.—It is not possible to estimate the acreage of any crop which will be planted here at this time as that will depend on the season. We do not raise wheat or rye, and the amount of oats, barley and corn will all depend on when they can be planted. With a normal spring we will have less oats, the same barley and more corn, with alfalfa, clover and soybeans increased somewhat.—Skewis Grain Co.

Winchester, Ind., Apr. 2.—I know very little about the grain situation, but as for the win-

ter wheat crop, I am sure I didn't see anything but almost perfect wheat from Georgia to Indiana. I was through North and South Carolina, Georgia, Tennessee, Kentucky. Crossed the river at Madison, Ind., on to Indianapolis, then home here. Wheat was just good, I can't see how it could be any better.—Goodrich Bros. Co., P. E. Goodrich, pres.

Decatur, Ill., Apr. 4.—Wheat is looking fair, quite a few brown spots, especially in those fields where there is a large area of higher land and light soil. Moisture is ample to make a good surface condition. Oats seeding is practically completed. Farmers no longer consider oats a money crop and seed them primarily as a feed crop, therefore they are not so particular about the kind of seed they sow. This is pretty well confirmed from the quality of oats that Illinois has raised in recent years.—Baldwin Elevator Co.

Winchester, Ind., Mar. 28.—Farmers have sown very few oats, fields being too wet. We are fearful that the oats crop won't amount to any more than the 1935 crop. Late oats in this territory are seldom good quality or yield. Price level is so low that unless a farmer finds it necessary to sow oats in order to get a stand of clover, he will pass them up. In our opinion most of this abandoned acreage will go into corn and soybeans. We have plenty of surface and subsoil moisture. Winter wheat is very short growth, but most of it is living and a few warm days will bring it out.—Goodrich Bros. Co., C. C. Barnes, sec'y.

Jewett, Ill., Apr. 2.—Very little wheat sown in this vicinity last fall, about half as much as year before. Too early to tell yet how badly damaged by past winter. Oats acreage will be cut due to present weather conditions which, if continued for another week, will mean practically no sowing of same. Just what will be put in will in part depend upon weather conditions and also on just what the new AAA proposition will be. If acceptable, greater part will go into grasses and forage crops. Indications are for a larger corn acreage than last year's, although this will also depend upon weather and ability to get seed corn at a reasonable figure.—Jewett F. & F. Co.

Glentana, Mont., Apr. 2.—In this territory nothing but spring wheat is raised, and a little oats, barley and rye for feed purpose. Hard to tell what will be planted here this year at this time. Plowing is practically all done in the spring in this territory, and it depends on the spring how much they can get over to seed. But I really look for more acres to be seeded this spring than last. At same time the spring is late, we still have snow drifts better than six feet deep at places, and still keeping cold, so it really looks like a late spring, and then it depends a good deal on how much help they can get from the government to buy seed, fuel, etc., which is needed to get this crop in. There might be more plowed later in the season to seed oats, barley, rye and millet for feed purpose, but none of that will ever be put on the market.—H. C. Sorenson, mgr. Glentana Grain Co.

Chicago, Ill., Apr. 2.—Conditions of the winter wheat promise a yield of 530,000,000 bus. with a possible abandonment of 15% of the seeded acres. While the crop deteriorated during March in parts of the panhandle and southwestern Kansas, the condition of the remainder in the Southwest, as well as most everywhere else east of the Missouri, has attained enough improvement to more than balance such losses. However, the situation in much of western Kansas and adjoining portions of states is such, owing to the absence of adequate sub-moisture, that heavy losses will develop in case this shortage is not replenished before the coming of hot, growth-forcing weather. Cold weather, along with recent snowfalls, promises to delay spring wheat seeding in our Northwest and western Canada, and although it is good for the replenishment of sub-moisture, nevertheless late seeded spring wheat is conducive to rust and blight damage, also an early and favorable seeding season has been hoped for all along because of many farmers' being unable to obtain good seed and are being compelled to use the inferior rust-shrunken seed they have on hand.—H. C. Donovan, statistician Thomson & McKinnon.

Minneapolis, Minn., Mar. 27.—The heavy snow blanket that covered a large share of the grain raising territory has disappeared gradually and most of it soaked into the soil, replenishing some of the subsoil and giving good surface moisture conditions for plowing and seeding. Seeding operations have been delayed

by wet soil. Some seeding has been done in southern Minnesota and South Dakota, but seeding will be late in the spring wheat territory this year. The soil is in splendid condition with sufficient surface moisture to germinate the seed. Although a good stock of seed is available in the Northwest, many farmers will be obliged to sow their lightweight, rust-affected wheat, as they cannot afford to pay for good seed. This lightweight wheat will germinate but there is not enough body to carry it thru the severe climatic conditions that usually affect the young plant, and the abandoned acreage may be heavy in the spring wheat area this year. With the intended spring wheat acreage at 22,440,000 and the 47,529,000 acres of winter wheat now in the ground, the total wheat acreage of 1936 is around 70 million, the largest since 1928. Expected abandonment may lower this considerably, but assuming average growing conditions, the harvest this year should be in excess of domestic requirements, which will place this country on an export basis. Rye has come thru the winter in fair to good condition, and only very few sections report poor prospects.—T. R. Shaw, editor Car-gill Crop Bulletin.

Winter Wheat Promises 545,000,000 bus.

Chicago, Ill., Apr. 2.—The condition of winter wheat the last week of March was 71.5% of normal, against 70.1 a year ago.

Abandonment expected of winter wheat is about 14%, which would leave 40,815,000 acres for harvest. Whether or not more will be abandonment depends largely upon whether the dry section of the southwest gets needed rains in April. Last year 30.4% of the planted acreage was not harvested.

Taking into consideration both acreage and condition we interpret the situation in the last week of March as suggesting about 545 million bus. This is larger than our March 1 interpretation of 500 million bus., due largely to allowance for smaller abandonment than average in the soft wheat states. The winter wheat crop last year was 433 million bushels, 351 million two years ago, and 618 million average in the five years 1928-32.—Nat C. Murray, statistician Clement, Curtis & Co.

Winter Wheat Condition 71.9

Chicago, Ill., Apr. 2.—The condition of winter wheat Apr. 1 is estimated at 71.9% of normal compared to 69.8% last April and 78.9%, the 1923-32 average April condition.

Estimated probable abandonment of planted winter wheat acreage is 17.4% of the sown acreage. The ten year average abandonment is 12.6%. Actual abandonment of the acreage planted in 1934 was 31.1%. Our estimate of 17.4% abandonment, if revision to accord with later indications is not needed, would leave 39,260,000 acres for harvest from 47,529,000 sown.

Production of winter wheat is forecast at 544,-675,000 bus. The greater than average decline between December and April (especially in March) explains the reduction in our production estimate.

There is immediate need of moisture in the Southwest west of the 100th meridian to make the best probable crop out of present conditions, but a greater than average decline which would be necessary to necessitate a reduction in the production forecast may not result if this moisture is received soon after the arrival of growing weather.

The condition of rye is estimated at 69.0% of normal compared with 69.1% in December, 76.4% last April and the 1923-32 April average of 82.3%.—R. O. Cromwell, statistician Lamson Bros. & Co.

Spokane, Wash.—The Archer-Daniels-Midland Co. has instituted a program of great interest to Inland Empire farmers in the growing of flaxseed for oil manufacture, according to E. A. Boyd of Boyd-Conlee Co. C. H. Shaver is now meeting with various groups of farmers urging them to plant flax, which his company will agree to take at Portland on the basis of the price at Duluth.—F.K.H.

A bill has been introduced in the house of commons by the Canadian government to equalize payment to western farmers who sold wheat in 1930 to the pools, setting a limit of \$6,600,000 on the amount that may be spent in the operation. The bill would equalize payment of No. 1 Northern wheat at Fort William at 60 cents a bushel and No. 1 Amber Durum at 66 cents.

Grain Movement

Reports on the movement of grain from farm to country elevator and movement from interior points are always welcome.

Hardin, Mont., Apr. 2.—Two per cent left on farms.—Hardin Grain & Fuel Co.

Friend, Neb., Apr. 4.—Wheat in farmers' hands, 10%.—Acme Mills & Elevtr. Co.

Hull, Ill., Mar. 31.—Very little wheat or corn in farmers' hands.—Hull Elevator Co.

Revillo, S. D., Apr. 5.—Grain in farmers' hands: Wheat 40%, oats 60%, flax 10%, barley 35%, corn 30%, rye 5%.—Farmers Elevator Co., J. F. Denereax.

Chicago, Ill.—Two cargoes of soybeans will be shipped from this city to Montreal, Que., as soon as lake navigation opens. The two cargoes total 170,000 bus.

Jewett, Ill., Apr. 2.—From information had, no wheat or oats in hands of farmers now other than those having poultry. Corn on hand about 25%, with but very little of merchantable grade.—Jewett F. & F. Co.

Chicago, Ill., Apr. 2.—Farm stocks of wheat Apr. 1 were approximately 100,000,000 bus., of corn 800,000,000 and of oats 520,000,000 bus.; against, a year ago, wheat 94,000,000, corn 438,000,000, and oats 208,000,000 bus.—Nat C. Murray, statistician Clement, Curtis & Co.

Centerville, Mich., Apr. 1.—About 70% of last year's crop of wheat and rye has been moved out of this section, leaving about 30% still to be put on the market. There is still about 50% of our corn crop to be marketed. All grains here have been of the lowest quality this last year of the 30 years we have been in business.—Reynolds Hay & Grain Co.

Decatur, Ill., Apr. 4.—The movement of corn has been very light and the demand only fair. The good corn is improving in moisture and the poor corn is showing considerably more damage. Some of this poor corn coming in now analyzing from 15 to 50 per cent damage. It is very evident now that this corn should have been moved in January and February.—Baldwin Elevator Co.

Winchester, Ind., Mar. 28.—There has been no wheat moving, very little left on the farms. Corn movement since the blizzard has been immense. Handled more cars of corn in the past thirty days than we have for several years. Receipts are now beginning to show up an occasional car of No. 4, but the quality of the corn itself is not nearly as good as it was last fall, and we are having some little trouble with our kiln-dried corn.—Goodrich Bros. Co., C. C. Barnes, sec'y.

Boston, Mass.—Since Jan. 1 Canadian wheat has been exported from Boston amounting to 2,156,436 bus., according to the U. S. Customs here. It is nearly two years since a full cargo of grain left the port of Boston. Stocks held in local elevators, according to the Boston Grain & Flour Exchange, as of Apr. 1, were: 65,558 bus. wheat (all excepting 1,490 bus. being Canadian), 4,700 bus. corn, 1,005 bus. oats and 500 bus. malt. Another shipment of German malt was brot to Boston, consisting of 466 bags.—L. V. S.

Rye Movement in March

Receipts and shipments of rye at the various markets during March, compared with March, 1935, in bushels, were:

	Receipts		Shipments	
	1936	1935	1936	1935
Baltimore	207,409	279,935	525,310	983,765
Boston	1,100			
Chicago	168,000	4,000	569,000	514,000
Duluth	383,848	324,156	732	156,282
Ft. William	68,680	6,780		
Indianapolis	139,500	6,000	114,000	99,000
Kansas City	9,000	16,500	1,500	1,500
Milwaukee	79,240	4,245	85,340	6,275
Minneapolis	745,890	72,530	302,950	197,690
New Orleans	1,486			3,000
Omaha	92,400		95,200	200
Philadelphia	171	4,492		
St. Joseph	1,500		3,000	
Seattle	7,500	3,000		
Superior	278,895	242,700		139,045
Toledo	24,000	3,600	4,680	1,230
Wichita	1,300			

Ottawa, Ont.—Total stocks of grain in different elevators during the week ending Mar. 27, 1936, in western country elevators, interior private and mill elevators, interior public and semi-public terminals, Vancouver-New Westminster, Prince Rupert, Churchill, Ft. William and Port Arthur, eastern elevators (lake, St. Lawrence and seaboard ports), U. S. lake and Atlantic seaboard ports, were as follows: Wheat 209,263,559 bus., oats 12,344,448, barley 8,997,643, flaxseed 419,826, rye 4,759,948. Same week the previous year: Wheat 231,247,795 bus., oats 14,164,497, barley 10,727,224, flaxseed 408,676, rye 3,820,536.—R. H. Coats, Dominion statistician.

Chicago, Ill., Apr. 2.—Stocks of wheat on farms are estimated at 104,000,000 bus. or 16.1% of the July 1 farm supply of 645,000,000. The 1927-34 average is 131,000,000 bus., or 12.6%. Farm disappearance since Jan. 1 is indicated at 55,000,000 bus., or 8.5% of the July 1 farm supply, compared with 44,000,000 bus. last year, or 7.9%, and an average of 116,000,000 or 13.4%. Stocks of corn for grain on farms are estimated at 883,000,000 bus. or 44.5% of the Oct. 1 farm supply, compared with an average of 826,000,000 bus. or 35.0%. Farm disappearance since Jan. 1 is indicated at 460,000,000 bus. or 23.2% of the Oct. 1 supply compared with an average of 629,000,000 bus. or 26.7%.—R. O. Cromwell, statistician Lamson Bros. & Co.

Duluth, Minn.—Grain receipts at Duluth-Superior during March showed a substantial increase over the February movement, due to the clearing up of snow obstructions and warmer weather, stimulating country marketing and making it possible for farmers to haul grain to elevators. Since the first of April, however, growers' selling has dwindled, so that the present movement does not amount to much, with business at a minimum. Barring some new developments in future marketing it seems likely that we are going to have a long, dull and uninteresting period in cash grain marketing. March grain receipts, 1,668,190 bus., were nearly four times larger than for the same month in 1935, but the volume of shipments were reversed, being only 769,100 bus., or just about one-half that of a year ago, when 1,574,113 bus. were loaded and shipped out. Grain stocks accumulate slowly and will probably show the peak, 19,000,000 bus. or so, by the time navigation opens and boats commence to load. Elevator stocks at this time in 1935 were more than 7,000,000 bus. under what is now carried. Canadian receipts for March were 19,880 bus. of durum wheat, shipments 29,000 bus. wheat and 20,872 barley.—F. G. C.

Oats Movement in March

Receipts and shipments of oats at the various markets during March, compared with March, 1935, in bushels, were:

	Receipts		Shipments	
	1936	1935	1936	1935
Baltimore	79,998	11,353	127,429	131,927
Boston	5,600	4,810		
Chicago	2,361,000	294,000	1,269,000	518,000
Duluth	378,660		43,950	335,475
Ft. William	353,931	95,447	263,825	136,080
Ft. Worth	56,000	102,000	56,000	58,000
Indianapolis	742,000	264,000	662,000	332,000
Kansas City	242,000	124,000	218,000	266,000
Milwaukee	164,980	133,340	370,500	205,200
Minneapolis	1,710,000	140,750	3,211,740	1,277,290
New Orleans	6,995	469,167	14,108	823,675
Omaha	460,000	186,000	855,535	728,565
Philadelphia	68,259	80,514		
St. Joseph	920,000	270,000	210,000	136,000
Seattle	48,000	2,000		
Superior	38,161	2,496	38,956	95,405
Toledo	964,250	135,300	736,955	162,820
Wichita	4,500	7,500	3,000	19,500

Barley Movement in March

Receipts and shipments of barley at the various markets during March, compared with March, 1935, in bushels, were:

	Receipts		Shipments	
	1936	1935	1936	1935
Baltimore	12,075	1,417	31,274	4,251
Boston		860		
Chicago	1,920,000	494,000	267,000	221,000
Duluth	436,851	19,266	258,750	242,529
Ft. William	358,973	111,074	28,234	1,308
Ft. Worth		1,600		
Kansas City	73,600	30,400	20,800	11,200
Milwaukee	2,423,480	913,320	723,600	281,400
Minneapolis	3,183,670	680,050	2,790,040	1,684,970
Omaha	172,800	6,400	316,722	27,828
Philadelphia	4,606	1,480		
St. Joseph	24,500		28,000	
Seattle	8,000	3,200		
Superior	213,175	19,999	206,591	37,406
Toledo	9,600	2,400	16,160	86,970

A.A.A. Plans Reduced Grain Plantings

Farmers who cannot wait longer to begin their planting are being advised that they can participate in the benefits of the new A.A.A. soil building program by increasing the proportion of their land which is planted this year in soil-building or soil-conserving crops. Grasses and legumes fall in this classification.

The program being explained at meetings this month, as announced by H. R. Tolley, acting administrator of the A.A.A., is working for a reduction in the acreage of soil depleting crops, listing as such crops, corn, cotton, tobacco, potatoes, rice, sugarcane, sugarbeets, peanuts to be harvested for nuts, sorghums, and small grains, including wheat, oats, barley, rye, buckwheat, flax, emmer, speltz, and grain mixtures.

The maximum limits on percentages of soil-depleting acreages devoted to soil-building crops on which the A.A.A. will pay benefits are 15% on most crops, 35% of the cotton base acreage, 30% of the tobacco base acreage, and 20% of the peanut base acreage. Those raising sugar crops, rice and flax need make no shifts in acreage, but will be required to plant additional acreages to soil-conserving crops.

A Trade Organization known as the Sugar Institute, Inc., was found by the Supreme Court of the United States Mar. 30 not to be a "conspiracy in restraint of trade," as charged by the government. Co-operative efforts to correct abuses were held permissible, as long as there were no unwarrantable restrictions, "to curtail production and raise prices." This condemnation of the purpose of the A. A. A. and Soil Conservation Acts is not relished by those who plan to regiment the producers.

Wheat Movement in March

Receipts and shipments of wheat at the various markets during March, compared with March, 1935, in bushels, were:

	Receipts		Shipments	
	1936	1935	1936	1935
Baltimore	1,496	57,447	19,054	333,102
Boston	8,600	1,100	601,061	
Chicago	413,000	582,000	1,080,000	495,000
Duluth	455,378	122,076	448,750	413,962
Ft. W'm	4,813,166	3,687,322	51,783	9,786
Ft. Worth	176,400	166,600	128,800	533,400
Hutchinson	108,800	539,000		
Indianapolis	756,000	164,000	157,000	61,000
Kan. City	2,753,600	894,400	1,594,735	1,876,435
Milwaukee	10,780	4,620	75,600	149,800
Minneapolis	4,121,050	1,260,460	3,382,690	1,700,610
New Orleans			7,926	44,700
Omaha	556,329	342,487	537,700	175,816
Philadelphia	37,012	58,918	86,726	
St. Joseph	283,200	240,000	358,400	430,400
Seattle	655,200	448,000		
Superior	386,665	168,808	168,949	177,155
Toledo	819,000	376,600	291,655	273,795
Wichita	349,500	631,500	493,500	330,000

Corn Movement in March

Receipts and shipments of corn at the various markets during March, compared with March, 1935, in bushels, were:

	Receipts		Shipments	
	1936	1935	1936	1935
Baltimore	49,127	285,618	163,558	473,238
Boston		3,530		
Chicago	4,610,000	1,105,000	1,480,000	1,462,000
Duluth			3,888	425,865
Ft. William				1,071
Ft. Worth	145,500	249,000	31,500	120,000
Hutchinson	1,500			
Ind'n'polis	3,022,500	954,000	1,635,000	820,500
Kan. City	1,752,000	2,098,500	781,500	2,389,500
Milwaukee	607,600	96,100	261,300	221,000
Minneapolis	680,680	70,660	430,430	1,042,500
New Orleans	19,113	564,611	13,210	148,227
Omaha	1,608,968	507,271	1,166,553	1,453,401
Philadelphia	38,907	252,373		
St. Joseph	715,500	357,000	318,000	364,500
Seattle	3,000	1,500		
Superior	2,838	6,483	3,000	422,100
Toledo	446,250	67,500	267,455	
Wichita	26,000	29,900	1,300	50,700

The Wheat Situation

By GILBERT GUSLER, Statistician, Millers' National Federation

Chicago, Ill., Mar. 28.—Moderate increase in primary receipts, continued inflow from Canada, lighter flour sales than in February, softening premiums for cash wheat and gradual liquidation of stale speculative holdings of the May delivery featured domestic wheat markets in March. Adverse crop conditions have been considered too localized to obviate probability of an export surplus and eventual readjustment of domestic prices toward export parity.

Abroad, importing countries have been absorbing slightly larger amounts than previously this season and Australian exports have tapered off somewhat, but Canadian exports have remained less than are needed to clear the decks properly for next year, European crop comments have been more favorable than in mid-winter and war talk has died down.

In the 12 weeks ending Mar. 21, domestic primary receipts were 22.8 million bushels compared with 12.8 million bushels last year and 26.2 million bushels two years ago. The domestic visible supply has declined 23.5 million bushels since the end of December compared with 33.7 million bushels in the like period last year and 32 million bushels two years ago. The visible is only about 2.7 million bushels less than last year compared with 25 million less when the visible was at maximum last October.

Canadian Imports 450,000 Bushels Weekly

Imports of Canadian wheat into northern border ports duty paid have been averaging about 450,000 bushels a week while imports into bonded mills have averaged about 225,000 bushels a week. For the season to March 14, imports for consumption totaled 26.1 million bushels, of which about 8 million bushels were feed wheat, while imports into bonded mills for grinding for export were 8 million bushels.

Stocks of Canadian wheat in bond in the United States have been decreasing rapidly, both through transfer into United States stocks on payment of duty and through larger exports. Bonded stocks on March 21 were down to 19 million bushels compared with 39 million bushels at the close of navigation last December and 18 million bushels a year ago.

Total stocks of domestic wheat in the United States are about the same as or slightly smaller than a year ago when April 1 stocks approximated 294 million bushels. Since Jan. 1, 1936, when total stocks were about six million bushels less than a year earlier, the amount ground into flour has been greater than in 1935, but net imports have

been larger and the amount fed probably has been less. Abundance of other feed grains and their cheapness compared with feed wheat have held utilization of wheat through livestock below early season expectations. Mr. Murray estimated that 74 million bushels were fed up to March 1 compared with 78 million bushels last year.

About 120 to 125 million bushels for mill grinding, 25 million bushels for seed and possibly 10 million bushels for feed appear to be reasonable allowances for utilization in the rest of the crop year. Since net imports probably will continue, the indications are that the carryover will not differ decisively from last year's total of 152 million bushels, but average quality of the carryover will be low.

Damaged Corn Determination

The following memorandum was sent to country grain shippers by a Federal Grain Supervisor:

It is deemed advisable to call your attention to the factor "total damage" in corn, owing to its importance during the present movement. The Board of Review, acting under the U. S. Grain Standards Act, has issued the following as a definition of "damage" and also a method of determining this factor:

Any damage to the kernel which is discernible to the eye and readily recognized as such by a practical grain man.

This may be in the form of so-called "blue eye," whether the blue spot be very small or cover the entire germ surface of the kernel; "cob rot" (mold damage), either pink, white, blue or black mold, which extends through the bran coat of the kernel; germ damage, when the germ is discolored brown or black, either from rancidity or other causes; frost damage, which also discolors the germ brown, black or green; heat damage, which needs no description; or any other form of disease or damage which is readily recognized as such, including badly "silk cut" kernels.

Any practical country elevator manager can determine the percentage of damaged corn in his shipments provided he adheres to the following suggestions:

Be sure that the sample is representative of the car lot;

Make "damage" separation in accordance with the above definition of damage;

Make the separation on not less than 250 grams of the sample free from foreign material and cracked corn;

Examining each kernel for damage on both sides;

Then weigh the damaged kernels picked out and determine per cent of damage by weight."

Complete Illinois Feed Plant

As near one man operation as possible was the plan of construction for the new elevator, feed grinding and mixing plant and wholesale warehouse operated by E. P. Huston and A. R. Moss under the name of H. & M. Supply Co., at Paris, Ill. Mr. Huston is sole owner of six country elevators operated under the name Rudy-Huston Grain Co. with head offices in Paris. Mr. Moss is manager of Rudy-Huston Grain Co., while Mr. Huston is devoting his entire attention to the management of the H. & M. Supply Co.

The new plant is built around a 115x30 ft. warehouse, served by the Pennsylvania railroad, that Mr. Huston has owned for some time. To this was added a 30x30 ft. grain storage unit with capacity for 11,000 bus. in its nine cribbed bins extending 16 ft. above the level of the warehouse roof. The cupola mounts 26 ft. in the air above the bins.

Half of the bins of the elevator are over the driveway, which facilitates the quick loading of trucks and wagons. The driveway dimensions are 13x30 ft., and 12 ft. 4 inches above the dump, which allows sufficient room for handling the long, semi-trailer trucks that are frequent visitors at the plant. An overhead track type electric truck lift handles all lengths of trucks, emptying them into a single receiving pit. Thru this pit the grain reaches the boot of a fast handling leg and is elevated in 14x7 inch Salem buckets to a 60 ft. height for distribution thru spouts to bins, car, cleaner, grinder, or back to the driveway.

Ear corn is elevated as ear corn and run thru a 200 bushel per hour Western Combination Sheller and Cleaner in the cupola. A 15 h.p. enclosed motor in the cupola runs both the leg and the sheller. Belts are used for transmission of power, except for the chain drive between the jack shaft and the leg head.

Feed manufacturing and grain cleaning machinery is located in a straight line along one wall of the warehouse space. In this line is a vertical feed mixer, a Kelly-Duplex Corn Cracker and Grader, and a large size cleaner, each driven by its own independent, enclosed motor.

In the basement is the hammer mill, run by a direct-connected 50 h.p. motor. Here also are the boots of two additional legs, one of which elevates soybeans and clover seed to the cleaner, the other elevating the cleaned grain and seed to a sacker on the warehouse floor. The remainder of the basement space is devoted to storage of feeds, feed ingredients, seeds, and sacked grains. A hand operated platform elevator transports loads up and down between the warehouse floor and the basement.

A 20x30 ft. space at the front of the warehouse has been converted into three rooms, two of them private offices for Mr. Huston and his salesmen, the third a large general office for the transaction of business. At one side of the general office space is the beam of a 20 ton Motor Truck Scale, which has a 24 ft. platform protected by a scale shed at the side of the office.

Mr. Huston uses most of the corn he buys at his six country elevators, located at Paris, Mays, Conlogue, Dudley, and Vermillion, Ill., and St. Bernice, Ind., as an ingredient in the complete line of feeds he manufactures under his own brand name. He also does a wholesale business in seeds, feeds and feed ingredients, supplying smaller dealers in a 50 mile radius, distributing by truck. For trucking purposes the plant is admirably located on hard-surfaced east and west State Route 16, a few blocks from its junction with the north and south Route 1, and U. S. Route 150.

No extension of time beyond Mar. 31 in which producers may secure loans on corn and cotton was to be allowed, according to the Commodity Credit Corp.



Elevator, Feed Mill, and Warehouse of the H. & M. Supply Co., Paris, Ill.

Factors Affecting Quality in the 1935 Corn Crop

By DR. J. R. HOLBERT, corn breeding specialist of Buro of Plant Industry

The quality of the corn which enters commercial channels this year is likely to be considerably below average. Several factors contributed to this condition, among which were late planting, early fall freezing, root worm injury, abnormal rainfall and sub-zero winter temperatures.

Short Growing Season.—Heavy spring rains in the corn belt states, delaying planting beyond the usual dates, and early freezes in September and October, when in one week temperatures fell to 26, 25 and 23 degrees in central Illinois and to 16, 15 and 12 degrees in Iowa, resulted in the shortest corn growing season in the history of the corn belt states. Not since 1917 have such low temperatures occurred in the early fall in these areas.

Insect Injury.—This crop was also damaged by a serious infestation of the southern corn root worm. This insect appears in numbers in ten to twelve year cycles and does the most serious injury in wet weather, while the chinch bug, a pest during the past few years, does the most damage in dry weather. The root worm injures the root system of the corn plant, delaying the maturity of the corn and causing many of the stalks to fall over, exposing the ears to rot infection from the soil.

Fall and Winter Weather.—October and November, 1935, were months in which the rainfall in the corn belt was about five times the normal amount. Weather similar to that occurring last fall was also experienced in 1926, when early frosts were followed by high humidities and heavy rains. The 1926 corn crop was more heavily damaged by ear rots than any crop for which there are records. That year the receipts of corn which were sampled by federal grain supervisors showed that 40 per cent of the samples contained over six per cent damaged kernels.

The 1935 crop may equal this record if drying out of the corn is further delayed and warm weather comes while the corn has a high moisture content. The present high moisture content is due to the September and October freezes resulting in immaturity of the ears, and to the heavy fall rains while much of the corn was "down" because of

insect injury. The sub-zero weather during the winter also had an adverse effect on drying of the corn.

Germination and Vitamin Content.—The early freezes also affected the germination. While in other years 95 per cent germination is usual with good seed corn, much of this year's corn, which has been saved for seed, will not exceed 50 to 60 per cent in viability. Tests have also shown that the vitamin content of much of the immature corn is only about one-half of the normal vitamin content of yellow corn.

Grade	Percentage Grading of Inspected Receipts			
	Dec. 16-31, 1935	March 1-14, 1936	Cumulative Period Dec. 1 to March 1, 1935-36	Cumulative Period Dec. 1 to March 1, 1934-35
1	0	0	0	6
2	1	2	2	23
3	6	3	4	46
4	21	22	19	21
5	50	62	57	3
Sample	22	11	18	1

The percentages by grades of corn receipts at Chicago, Kansas City, Omaha, St. Louis, Peoria, Indianapolis and Denver are shown. The percentage of corn receipts grading lower than No. 3 was abnormally high during the period and was caused principally by the factor "moisture content."

Cribbed Corn Going Out of Condition

Some experienced country grain dealers have been surprised at the rapid deterioration of ear corn in cribs following the breaking up of winter.

"Corn is going out of condition much faster than anyone expected," remarked 76 year old Oscar Jones, who runs the Henry C. Woodyard Grain Co. elevator at Woodyard, a few miles north of Chrisman, Ill. He was picking damaged ears from a slowly moving belt that was feeding the sheller. "Thru hand sorting we are removing about 6% damaged grain before shelling. Possibly another 4% is getting by us. But it takes a lot of extra labor, and slows up shelling. High moisture has held thru the winter. A little warm weather starts the corn to heating."

Mr. Jones has been running grain elevators for 54 years, getting his first experience when he went to work for W. F. Banta at Ridge Farm, Ill., in 1882. He was the originator of the hiker crib, the long corn cribs seen at so many of the elevators in the ear corn district of central Illinois. These cribs have

conveyor belts under their roofs to carry corn from a hiker back to each end of crib, a hand-set switch diverting the ear corn from the belt into the desired space. The first such crib was built at Metcalf, Ill., in 1901, says Mr. Jones, the largest was built for the Sibley Grain Co. at Sibley, Ill., in 1912. The latter had 800 ft. of crib space 24 ft. wide and 30 ft. high, built in four sections adjoining the elevator. Ear corn drags were arranged at the bottom of each of the units.

"I reckon I've been a subscriber to Grain & Feed Journals ever since it started," remarked Mr. Jones in the course of an interview with Traveler. "Wouldn't want to be without it. It has answered a lot of hard grain questions for me, and kept me posted on what was going on among the elevators."

Will Canadian Board Carry Spread?

The following statement has been posted by the Canadian Wheat Board on the bulletin board of the Winnipeg Grain Exchange: "For some time it has been customary for every branch of the trade interested in transferring hedges on cash grain from one future month to another to depend entirely on those in charge of the government wheat operations for all or a substantial part of the spread desired."

"The Canadian wheat board will continue so far as able to co-operate with the trade in spreading as well as other marketing operations. The board will continue to handle the cash wheat and futures in a normal way. The next spread will be July-October and we wish to suggest to the trade that they should consider if it is desirable for them to continue depending blindly on the board for all or any particular part of this spread."

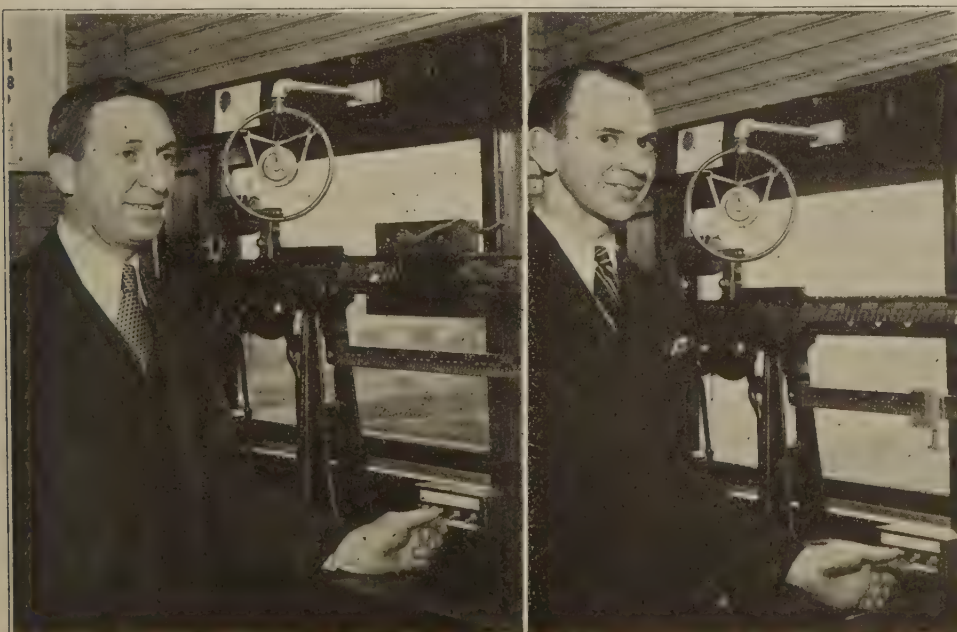
Loud Speaker Reduces Labor at Champaign Elevator

"Weigh up a hundred pounds of cracked corn for Mr. Brown," sounds a metallic voice in the feed house of Corray Brothers, grain, feed, and coal dealers, at Urbana, Ill. "Put it in the green Chevrolet you will find in the yard." It is the voice of Frank Corray, giving instructions to the man in the feed warehouse. Carried over a loud speaker system these instructions reach the feed man wherever he may be in the warehouse, without the delay that would attend the transmission of instructions by direct word of mouth, or by house phone systems. By the time the customer gets out to his car he finds the cracked corn already loaded for him.

The idea of the loud speaker system originated with Fred Corray, who usually has so many things to do that he is quick to take advantage of any device that will save time. It consists of a transmitting set, similar to the mechanism of a radio, hidden away in a cabinet in the office, a microphone suspended in rubber bands from a rigid conduit that projects from the office wall above the scale beam, a switch box for controlling the loud speakers, and four loud speakers, one just outside the office building, one on a pole in the coal yard, one in the feed warehouse and mill building, and one in the elevator.

"It is a one way system," says Fred. "It carries our instructions out to the men and they can't talk back to us. Nothing for them to do but follow instructions."

"The amplifying system is loud enough so that the instructions reach the men wherever they happen to be in the buildings or yards," adds Frank. "They don't lose any time running to the office, or running to a telephone on the wall. But it does have one disadvantage. The men claim that when the baseball season is on we will have to keep the radio going and cut in all loud speakers so that they can have the scores while they work."



Fred and Frank Corray, Urbana, Ill., take turns at the microphone to the system of loud speakers thru which they give instructions to the workmen in the elevator, feed mill, or coal yard.

Reducing the Explosion Hazard in Corn Starch Plants

By C. J. ALGER, Corn Products Refining Co.

GOOD HOUSEKEEPING is the most important factor existing and the easiest condition to control. We found it necessary to create or set a new standard of housekeeping. First, it was necessary to educate our foreman up to the new standard, and he in turn, instead of picking any individual and handing him a broom to sweep with, was requested to see that his sweepers were properly trained, by actually showing them how. Every effort was made to see to it that equipment was, as far as possible, dust tight. Eye beams, overhead equipment, corners, etc., were filled in so that they were easily swept out, or to prevent the dust from accumulating. Spills are cleaned up immediately after they are made, and not left for somebody on the next shift to clean up. Particular attention was given to the heating coils, which are used for general heating purposes in the building, and for the heating of air which dries the starch. These are washed clean with water at frequent intervals. Frequent inspections are made of dust departments at all hours of the day. There is no standard time set for the inspection, and all accumulations of dust are immediately reported to the manager of the plant.

While we are confident that somebody will develop a vacuum apparatus that will work efficiently in cleaning up dust accumulations, but those that have been tried out by the industry to date have not proved successful. The tools used in connection with the cleaning apparatus and the hose, are very inconvenient to handle, and hard to use in out of way places. Our general practice is to sweep down beginning at the top and working down. Of course, this is a continuous operation; some of the dust circulates thru the air, but after each sweeping there is a marked decrease in the quantity of dust on the overhead equipment, etc. It may be of interest to know that the Corn Products Refining Co.'s sweeping and cleaning expenditure in dust departments for one year was \$107,000, and the following year this was reduced to a total of \$86,000. Further reduction is expected, due to installation of dust collecting devices and more supervision on the part of the foremen in preventing chokes, spills, etc.

THE HUMAN ELEMENT. We have found it necessary to inform all our employees, and keep them constantly advised, as to the hazard that lurks in connection with dust. Signs are posted, cautioning them in regard to the carrying of matches in their clothes, other than the safety matches, and "No Smoking" rules are strictly enforced. Moving pictures of one of the greatest starch disasters which occurred were brought into the dust departments, and the employees in the dust departments invited to attend, it being very important that all employees know exactly what could happen and have this subject constantly presented to them in very frequent intervals; otherwise they are inclined to get careless.

It is said that 7 ounces of starch per 1,000 cubic feet of air, creates an ideal condition for a dust explosion. This, after all, is a very small quantity of dust, but brings out the necessity of effective control measures, beginning with the proper training of the employees, assisted by correct general layout and mechanical features of dust collecting.

DUST COLLECTING. In the past considerable sums of money have been expended to cover dust collecting devices which were installed and never proved efficient.

The problem of developing dust collecting systems was referred to our engineering department, whose representatives made investiga-

tions, and we were surprised to learn of the lack of definite data in existence that refers to this problem. However, the job was energetically taken over, as it was realized that to prevent dust from accumulating thruout the departments, it was necessary to create a slight vacuum in the conveyors, reels, hoppers, bins, bucket elevators, etc., and to create this vacuum without taking too large a quantity of the process goods being handled. Many experiments were made, and finally it developed that it was necessary to install piping rather large in diameter for a distance of 3 ft. to 6 ft. from the equipment that the collecting system was connected to. At this point the pipe was reduced in size so that an air velocity would be obtained, ranging from 3,000 to 4,000 cubic feet per minute. Friction losses in separate runs were accurately figured so that a balance would be obtained at the joints.

Knowing that the cyclone dust collectors were not completely efficient, we were finally successful in discovering a type of dust collector, fitted with cloths, both woolen and cotton, depending upon the material being handled, in a vertical position, equipped with knockers, the air passing through the cloth and the dust accumulated inside of the cloth, falling, when the knockers were put into operation, into conveyor, feeding the stock back into the system. With a plant producing about a million pounds of dry starch per day we have found that the dust collecting system recovers approximately 23 tons, and all with the exception of a small quantity of dust collected is put right back into the system, without the necessity of it being reprocessed. All dust collecting piping, etc., is grounded to steel to prevent the accumulation of static.

SPIRAL CONVEYORS which have been used for the handling of finished goods with their problem of proper lubrication of the bearings inside of the conveyor boxes, were thoroly gone into, and it was decided to equip each conveyor bearing with graphite, which is made up in button form, and held together on wire mesh, and in pouring the bearing, the graphite buttons and mesh are inserted inside the bearing metal. After this had been accomplished, a number of tests were made with the use of a recording pyrometer, operating conveyors at a speed of 175 rpm., temperature of bearing ranging from 360 to 410 deg. F., and we found that conveyors operating at 100 rpm. temperature was reduced to a range of between 200 to 250 F., so a standard of 100 rpm. speed of conveyor was adopted by the industry.

Ignition temperature of starch is about 1,200 deg. F., and that of flour being slightly higher. In recording the temperatures of bearings at various speeds, it is noticed that conveyors when running empty, the maximum temperature of the bearings was obtained. It has been our experience, that when an explosion occurs, the equipment is usually being operated without carrying a load, and by all means it is very important that when conveyors and elevators are not carrying their load or rendering their service they should be shut down.

For the purpose of preventing the propagation of fire from one building to another, through conveyors, it was necessary for us to develop a choke in the conveyor, so two different types of chokes were developed; the incline choke, costing approximately \$1,400 and the horizontal choke, costing approximately \$600. The horizontal choke consists of an open space in conveyor box for a distance of 30 in., there being no conveyor flights or shaft within this area; fastened to the top of the conveyor box

at this location is a large heavy bronze plate, hinged at one end, weighing approximately 100 lbs., and the bottom of the conveyor box is equipped with a triangular piece of wooden material. The greatest need of the choke is when the conveyors are empty. It was necessary to develop something that would permit and retain an accumulation of starch of a sufficient depth to prevent the pressure of an explosion going thru the box into the receiving building. The incline choke, of somewhat different design, has proved somewhat more efficient than the horizontal choke.

THE BUCKET ELEVATOR offers a difficult problem. We have found it essential and necessary to use exclusively metal housing in place of wooden. Copper elevator buckets are used. Careful supervision is maintained to see that the belts are properly taken up; frequent inspections being made of bearings, to see that they are properly lubricated. Some of the plants in the industry run their elevators at a speed of only 25 to 30 ft. per minute, whereas the standard speed ranges around about 400 ft. The installation of vents at the top of bucket elevators is now being considered, for the purpose of furnishing an explosion relief vent.

HOPPERS AND BINS—It is generally agreed that the small sized hoppers should be used. However, where large quantities of goods are being made, different moisture, etc., requiring separate storage bins, located near the bag filling machines, hoppers of about 80,000 lbs. are used in some of the plants, they being about 18 ft. high and 10 ft. square, sidewalls placed at an angle of 66½ deg. with a 3 ft. opening at the bottom.

Frequent arching of the goods in the hopper has been the cause of considerable trouble, but with the use of steel plate hoppers lined with maple, at the angle specified, with a 4 in. layer of Cello Cell between the wood and metal to prevent condensation and sweating, this trouble has been reduced to a minimum. Each hopper empties into a feeder, the same size as the conveyor, that receives stock from the feeder, feeder operating at a speed of 15 per cent less than conveyor. This helps considerably to prevent conveyor chokes immediately under the hopper. All hoppers are equipped with dome lights, fastened to the top of the hopper with a double glass globe and controlled by a switch outside of the hopper. Usually when an explosion occurs, it travels thru the conveyors and elevators and then to the hoppers. With this thought in mind, it has been definitely determined that wherever possible, the top of the hopper should be above the roof of the building and fitted with an explosion relief panel, equal to at least one-third of the area of the hopper cover.

To Fight Farm Imports

The Sioux City Chamber of Commerce has called a conference at Sioux City Apr. 14 of the governors of Iowa, Illinois, Minnesota, Kansas, North Dakota, South Dakota, Nebraska and Missouri; United States senators and congressmen of those states; presidents and secretaries of all state farm organizations, representatives of labor organizations, presidents of middlewestern railroads, presidents and secretaries of commercial organizations and representatives of the press, to consider the crisis the middle west faces as the result of rapidly growing importation of live stock, grains and other agricultural products, and to formulate plans to put an end to this unfair competition.

The conference will be non-partisan, devoted exclusively to saving American agriculture.

For Flaxseed the soil building payment under the Soil Conservation Act will be 20 cents per bushel on the average yield of flaxseed in the county on the acreage planted, provided that, in addition to land diverted under the general program, an acreage of at least 20 per cent of the flax acreage is planted to soil building crops.

Grain and Feed Trade News

Reports of new firms, changes, deaths and failures; new elevators, feed mills, improvements, fires, casualties and accidents are solicited.

ARKANSAS

Conway, Ark.—The seed crushing machinery of the Conway Cotton Oil Mill Co., which recently announced its decision to suspend, is being shipped to Paraguay, S. A. The company's feed mill may continue to be operated, tho a decision had not been reached at last report. Its operation is being continued for the present.

CALIFORNIA

Woodland, Cal.—George H. Hecke, of Woodland, former director of the State Dept. of Agriculture for 12 years, has had the honorary degree of doctor of laws conferred on him by the University of California, in recognition of his work in behalf of California agriculture.

Los Angeles, Cal.—The Syntha-Milk Co., of Dayton, O., has opened a Pacific Coast office and warehouse in this city, with R. W. Reeves as manager. This company, which started in business last July and has had a remarkable growth, manufactures a product which contains dried skim milk, dried milk albumen, iron oxide, iodine, fish meal, blood flour, alfalfa, crab meal, aniseed, fenugreek and red dog flour. It contains vitamin G and other vitamins.

CANADA

Oliver, B. C.—A new feed and supply warehouse costing approximately \$4,000 is to be built by the Oliver Co-op. Growers Exchange this spring.

Winnipeg, Man.—The Winnipeg Grain Exchange changed its opening hour to conform to the change made at Chicago, after the Canadian Wheat Board refused to protect shippers on overnight offers as long as a difference in trading hours existed. The opening time of the local exchange is now 8:30 a. m., central standard time, and the closing hour is 12:15 p. m.

COLORADO

Fort Morgan, Colo.—The Fort Morgan Mills, Inc., have added a corn cutter and grader to their equipment.

Denver, Colo.—Bids for the new plant (described in detail in the Mar. 11 Journals to be erected here by the Omar Mills, Inc., were received last week. Horner & Wyatt designed the plant.

Denver, Col.—Fred M. Smith was elected president of the Denver Grain Exchange at the annual meeting on Mar. 9; Nate C. Warren, first vice-president; H. D. Williams, second vice-president, and H. D. Mundhenk was elected to a new post of secretary-treasurer, after being secretary for the past 11 years. C. B. Seldomridge replaced Paul Harrington on the board of directors.

ILLINOIS

Warren, Ill.—V. S. Balbac has purchased a new feed mixer for his feed mill here.

Ridgeville, Ill.—John Osterbur expects soon to install a pneumatic truck lift in his elevator.

Ottawa, Ill.—A building to house a corn sheller was recently completed by the Co-op. Grain Co. here.

Woodhull, Ill.—The Woodhull Elvtr. Co. contemplates the installation of a new automatic scale in the top of the elevator.

Champaign, Ill.—Kenneth Stotler is manager of the local office of the Stotler Grain Co. that was opened here last October.

Putnam, Ill.—The Hagie Grain Co. announces that it will continue to operate here, following the tragic death of Harry W. Hagie.

Shabbona, Ill.—W. H. Herrmann has had a feed shed built on the west of his elevator. It is a two-story structure, 40x22 feet.

Guthrie, Ill.—The Guthrie Farmers Elvtr. Co. will change its electric power from a single motor to two motors in the cupola, one for each stand of legs.

Brighton, Ill.—The elevator of the Farmers Elvtr. Co. was broken into on Mar. 3, for the second time recently, and a radio and adding machine stolen.

Rochelle, Ill.—John Heue, salesman for the Quaker Oats Co. for the past 10 years, has purchased a cereal mill here which he has remodeled and re-equipped for operation.

Brock (Grant Park p.o.), Ill.—The Grant Park Co-op. Grain Co. has installed a 7½-h.p. motor in its engine room to operate the elevator. The engine is to be used in case of emergency.

Gibson City, Ill.—A new pneumatic truck lift will soon be installed at the plant of the Farmers Grain Co. The present overhead lift will be transferred to use in the corn crib driveway.

Cheneyville, Ill.—Ben Gamble, formerly second man, has been the active manager of the C. C. Harlan Co.'s elevator, operating it for the estate since the death of Mr. Harlan about two months ago.

Saidora, Ill.—Thomas Zedic Bell, owner of two grain elevators at this point, died at Passavant Hospital, Jacksonville, Ill., recently, at the age of 64 years. Burial was at Chandler-ville, Ill., on Mar. 17.

Geneseo, Ill.—One of the oldest landmarks in Geneseo is being razed, the Sommers & Bollen Elvtr., which has been standing since the early '70's. It has been operated by Messrs. Sommers and Bollen since 1913.

Chester, Ill.—The H. C. Cole Milling Co. has awarded the contract to the Ryan Const. Co. for the erection of its new 100,000-bu. elevator, for which Horner & Wyatt prepared the plans, as reported in the last number of the Journals. There will be five large and four small tanks. The new house replaces a stone elevator erected in 1872, now being razed.

Perdueville, Ill.—P. J. Larson has resigned as manager of the Perdue Elvtr. Co.'s elevator, effective July 1. His successor has not yet been appointed.

Waukegan, Ill.—Peter R. Simmons, 76 years of age, for more than 35 years president of P. R. Simmons & Co., grain elevator operators and wholesale feed and flour dealers here, died on Mar. 23, at his home in this city.

Claytonville, Ill.—Peter Coyer, manager of the Farmers Elvtr. Co.'s elevator, is still in a Chicago hospital, where he has been for a little over a month. Louis Hazenbrink, second man, is running the elevator in his absence.

Thawville, Ill.—The driveway of the elevator of the Thawville Farmers Grain Co. has been strongly reinforced and an extra door to the pit has been installed behind the original trap door to accommodate the long trucks.

Culver (R. R. No. 2, Athens p. o.), Ill.—The Culver Farmers Co-op. Co. has bot the depot of the C. & N. W. R. R., moved it across the tracks and made it into a modern grain office. The company has also installed a new 20-ton Fairbanks Scale.

Seymour, Ill.—H. A. Beasley recently bot the Murray elevator, and is operating it under the name of the Gring-Beasley Grain Co., which has been incorporated; capital stock, 150 shares p. v. common; incorporators: H. A. and Claude Beasley and Harry C. Gring; to conduct a general grain and elevator business.

Morton, Ill.—Henry W. Mathis, who for many years operated a grain and coal business at this point, succeeding his father in business, died at his home in Peoria, Ill. (where he had lived for two years), on Mar. 17, at the age of 55 years. Mr. Mathis was born in Morton and had served the town as mayor for three terms and as postmaster for over two terms.

Sibley, Ill.—Martin Suntkin, employed at the Sibley Grain Co.'s elevator, was injured, on Mar. 13, when a gasoline engine he was starting exploded. The cylinder struck him on the right leg, knocking him down, and he received a cut on his head and other cuts and bruises. He was taken to Brokaw Hospital, Normal, where he was expected to remain for a week.

Georgetown, Ill.—Walter Jackson, who operates his local elevator under lease to Federal Grain Elvtrs., Inc., broke his left forearm in an auto accident during the freak snow storm the middle of March. "Thru all the ice and snow we have suffered this winter," says Mr. Jackson, "I got along fine. Then I had to turn over in a little spell of snow that didn't amount to anything."

Peoria, Ill.—Every effort is being put forth to make the 43rd annual meeting of the Illinois Grain Dealers Ass'n, which will be held in this city, at the Hotel Jefferson on May 14 and 15, the best meeting ever held. The program is being arranged with the view to bringing to the fore the vital problems confronting the country elevators at this moment, namely, truck competition, the new warehouse act, etc.

Ogden, Ill.—The Fielding Grain Co. is installing a 20-ton Fairbanks Truck Scale with 22-foot platform. "We are not going backward on truck sizes," says Mr. Fielding, "and we are already receiving trucks that demand the weighing capacity of a 20-ton scale." In the elevator driveway the truck lift has already been moved forward 6 feet to accommodate the longer wheel base trucks that are hauling grain.

Putnam, Ill.—Harry W. Hagie, proprietor of the Hagie Grain & Lbr. Co. here, took his own life by shooting himself thru the heart at his summer cottage at Lake Senachwine, near Henry, on Mar. 19. He was alone at the cottage at the time and left a note for his wife. It is believed that financial worries were the cause of his act. Mr. Hagie was about 40 years of age and was highly regarded in his home city.

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Baldwin, Ill.—The Randolph Milling Co. is operating a feed and chick store up town but in connection with its elevator business. An elevator and feed and flour business is operated here, also a flour mill at Ava, Ill.

Urbana, Ill.—Since the death of F. G. Edwards in January, the Edwards Mill & Elvtr. Co.'s properties have been closed. G. W. Edwards, Champaign, is administrator of the estate, which includes a 9,000-bu. elevator and 25-barrel mill.

CHICAGO NOTES

Board of Trade memberships are selling at \$5,400, net to the buyer, a decline of \$100 from the previous sale.

The Stratton Grain Co. on Apr. 1 took over the private wires and offices of E. J. Feehery & Co. Mr. Feehery and his son will be associated with the Stratton Grain Co. in the management of the grain receiving business.

Board of Trade memberships transferred: Estate of Thomas F. Ellis. Change in firm name: Slaughter & Russel to A. O. Slaughter & Co. Changes in registration of members: Thomas F. McCarthy registered for own account (was registered as vice-pres., McCarthy Bros. Co., Duluth, Minn.).

Charles F. Kieser, for a long time associated with the commercial mixed feed industry, one of the founders of Kasco Mills, Inc., of Toledo, O., and Waverly, N. Y., and for several years past manager of the dairy specialties division of Kraft-Phoenix Cheese Corp., this city, has tendered his resignation, effective the middle of this month, after which time he will be associated with the Borden Co., of New York, N. Y.

The Grain Market Analysts Club will hold its final meeting of the season Wednesday, Apr. 8, at 6:30 p. m., in the Board of Trade Grill, the dinner costing \$1.50, members and their guests \$1.15. J. R. Lloyd, weather forecaster in the Department of Agriculture, will appear as guest speaker, and will tell of the weather bureau, showing also a motion picture entitled "Back of the Weather Forecast." In addition there will be the local crop experts, B. W. Snow, Nat C. Murray, R. O. Cromwell, H. C. Donovan and Mrs. E. H. Miller. It is suggested that reservations be made early thru Sec'y F. M. Schwandner.

INDIANA

Tocsin, Ind.—The Tocsin Lbr. & Grain Co. is doubling the size of its office facilities.

Angola, Ind.—The Steuben County Farm Buro has installed a corn cutter and grader.

North Vernon, Ind.—Ebert & Bro. recently installed a Blue Streak Corn Cutter unit in their elevator.

Sheridan, Ind.—Stockholders of the Farmers Co-op. Co. recently decided to dissolve the corporation.

Angola, Ind.—It is reported that the Tri-State Co-op. Ass'n plans replacing its feed mill recently destroyed by fire.

Kirklin, Ind.—Moore Bros. have improved the equipment of their elevator by the installation of a Blue Streak Corn Cutter.

Helmer, Ind.—Edwin Bard has removed the old steam power house at his elevator and will add new bins to the coal shed.—L.

Kewanna, Ind.—The Standard Elvtr. Co. is installing a new grain drier in its local elevator. Ross Cullless remains as manager here.

Dixon, Ind.—D. W. Long will install a new 15-ton truck scale, a new Sidney Hoist and three additional motors immediately.—L.

Indianapolis, Ind.—Recent new members of the Indiana Grain Dealers Ass'n are the Ambia Grain Co., of Ambia, and the Davis Seed Corp., of Lebanon.

Chase (Boswell p.o.), Ind.—We have installed a new Western Hoist, using electric power, which serves the elevator and mill both, by putting in extra long tracks.—Farmers Co-op. Co., Ray Roberts, mgr.

Hartford City, Ind.—The Knecht Milling Co. was robbed during the daylight hours, on Mar. 20, of a sum of money. This robbery followed within the course of an hour of a daylight bank robbery about 25 miles away.

Milton, Ind.—Wilbur Elwell, owner and operator of the former Milton Grain & Fuel Co., died at his home in Indianapolis, where he has lived for the last three years, at the age of 66 years, after a four years' illness.

Brook, Ind.—The daily press report that the Standard Elvtr. Co. had transferred Ross Cullless, of Kewanna, Ind., to this point, was erroneous. Walt Nading has charge of the company's elevators at this point and will continue to have.

Chrisney, Ind.—The Hartz Flour Mill burned during the night of Mar. 25; loss, \$16,000. Over 1,000 bus. of wheat and a quantity of corn and feed were destroyed. The mill was owned by Bernard Hartz and had been in operation for 22 years.

Howe, Ind.—The Lima Elvtr. Co. recently came near to having a serious accident when the rope fastened to the manlift slipped thru the clamps. Fortunately the employee on the lift at the time was quick enough to save himself from plunging to the bottom.—L.

Evansville, Ind.—Otto Knauss, of the Phoenix Flour Mill, has been named by Judge John W. Spencer, Jr., of the Vanderburgh County circuit court, on the security board of Vanderburgh to look after old age pensions and the unemployment insurance.—W. B. C.

Bicknell, Ind.—Oscar Barr recently purchased and installed in his elevator here a machine for the treating of any kind of seed by any kind of a treatment. Its capacity for certain grain treatment is about 75 bus. per hour. It takes only about one-half to three-quarters h.p. to operate it.

Portland, Ind.—The pouring of the concrete for the walls of the new 17,000-bu. elevator under construction by the Haynes Milling Co. (described in detail in the Feb. 26 Journals), was started on Mar. 24. The elevator will replace one destroyed by fire last December. The Indiana Engineering & Const. Co. has the contract.

Indianapolis, Ind.—Effective Apr. 1, employers of eight or more persons in Indiana are subject to the new unemployment compensation act, which requires employers to contribute 1.2% of wages paid for the remainder of 1936, 1.8% for 1937 and 2.7% for 1938 and 1939. After Jan. 1, 1937, employees pay half the employer's rate but not in excess of 1%.

Terre Haute, Ind.—Elmer Clark and Frank Hary, proprietors of a feed store on the site of the new city hall, aspire to continue operations. They have brought suit in the Vigo circuit court to compel Harry Smith, owner, to grant a two-year extension of their lease on the property which is a part of the tract that the city expects to use for city hall purposes. The lease expired Jan. 24, but it is contended that the old lease provides for two years' extension.—W. B. C.

Fishers, Ind.—The large elevator of the Fishers Grain Co., Inc., P. W. McComas proprietor, burned on Mar. 25; loss, about \$40,000; partly covered by insurance. A quantity of wheat, oats, corn and soybeans, totaling about 15,000 bus., was destroyed also. The fire was believed to have started in a cob burner. Two homes and an old bank building, that recently has been used for testing corn, were damaged by exposure. Fighting the fire was handicapped by an inadequate water supply.

IOWA

Ladora, Ia.—The old elevator here, erected many years ago, has been razed.

Winterset, Ia.—The Farmers Co-op. Co. was robbed of \$25 during the night of Mar. 1.

Britt, Ia.—The Spangler Elvtr. Co. contemplates the installation of overhead drives soon.

Estherville, Ia.—The Davenport Elvtr. Co.'s local brokerage office was discontinued Mar. 31.

Algona, Ia.—Grain cleaning equipment was recently installed in the elevator of the E. R. Rising Grain Co.

Lake Park, Ia.—Paul Vettes, manager Farmers Elvtr. Co.'s Elevator here was elected councilman at a recent election.—A. G. T.

Hazleton Ia.—Hazel H. Nicholson has purchased the local elevator from Cyril Arthand which he has been operating under lease.

Marshalltown, Ia.—Thieves broke into the Kessler Grain Co.'s office the morning of Mar. 26, but nothing was taken.—Art Torkelson.

Muscatine, Ia.—The Mississippi Valley Grain Co. has been granted a permit to erect a \$4,000 building which it will use as a storage shed.

Ferguson, Ia.—William Renner has taken over the management of the Ferguson Grain Co.'s elevator, succeeding D. Almon Miller, who resigned recently.

Williams, Ia.—The new manager of the Farmers Elvtr. Co. is Lawrence Jacobs, formerly of Dows, who succeeds Melvin Brown, resigned.

Clarion, Ia.—After rebuilding the driveway to its elevator this spring, the Burt Grain Co., intends to install a new 20-ton scale and a new truck lift.

LaPorte City, Ia.—W. D. Lytle, manager of the Logan Milling Co., sustained a severe injury to his right hand recently, while working at the mill.

Roland, Ia.—A petition in bankruptcy was recently filed by the Farmers Co-op. Co. and also a petition for reorganization under the Federal Bankruptcy Act.

Wesley, Ia.—The Farmers Co-op. Society has modernized its elevator, installed two new truck scales and erected a new warehouse, which is equipped with a truck lift.

Cedar Falls, Ia.—R. A. Gage, who has served for 13 years as manager of the Farmers Co-op. Co.'s elevator, has retired and been succeeded by Lee Hurlbut, who has been assistant manager of the elevator for 11 years.

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Colwell, Ia.—Lee L. Coonradt, manager of the Colwell Grain Exchange, was recently appointed mayor here to fill a vacancy.—Art Torkelson, with Lamson Bros. & Co.

Clear Lake, Ia.—The Farmers Co-op. Co. has decided to add a grain mixer, crusher and cracker to the feed grinder already installed, the new equipment to be put in soon.

Ackley, Ia.—The oldest elevator in Ackley, built in 1875, owned by the Farmers Co-op. Co. since 1917 and operated until a year ago, is being dismantled, preparatory for wrecking.

Whitten, Ia.—A. A. Agnew, who has managed the Mable Grain Elvtr. Co.'s elevator here for the past 15 years, resigned recently and took a similar position at Traer, Ia. Lloyd Hauser has been appointed to succeed him here.

Sioux City, Ia.—The Western Grain & Feed Dealers Ass'n has prepared a splendid program for its annual convention that is to be held in this city on Apr. 22 and 23, at the Hotel Martin. Part of the program is published elsewhere in this number.

Colfax, Ia.—George S. Marshall, proprietor of the Marshall Feed Co., has bot the Colfax Mill & Feed Co. from Lyle Schmitt. Mr. Marshall has moved all his equipment to the Colfax Mill & Feed Co. location and will conduct the business under that name.

Waterloo, Ia.—A "check artist" visited the Mor-Kik Feed Co. recently, purchased \$10 worth of feed, presented a check for \$17.50, received the change, announcing he would call later for the feed. The check came back, marked "No funds," but the maker of it did not come back.

Fort Dodge, Ia.—Wilbur H. Thompson, sec'y of the Farmers Grain Dealers Ass'n of Iowa, recently accepted the position of sec'y-treas. of the Omaha Bank for Co-operatives. D. E. Edison, also of this city, who has been traffic manager for the ass'n since 1932, has been named acting sec'y, succeeding Mr. Thompson.—Art Torkelson.

Rockwell City, Ia.—Wayne Babcock, of Farnhamville, and E. H. Brewer, of Gowrie, are remodeling the old Rockwell City Mill, formerly operated by M. C. Highberger, and plan to reopen the business soon. Dwight Babcock, at present assisting his brother, Wayne, in a milling business at Farnhamville, will move here to operate the mill.

Nashua, Ia.—Galen Mellinger, owner of the Nashua Feed Mill, and H. C. Goodsell have formed a partnership and will put in a complete line of millfeeds for retail to the farmers, continuing to manufacture and sell the brands of feed which have been made at the local mill for a number of years. A large hopper was recently built on the northwest corner of the mill to take care of oat hulls.

Sioux City, Ia.—A conference of governors, senators and representatives and agricultural leaders of the central western states has been called for Apr. 14, at the Martin Hotel by the Chamber of Commerce to consider what can be done to save American agriculture from the flood of imports of farm products that promises to ruin the farmer's market.

Traer, Ia.—Nell Ashbaugh, one of two women elevator managers in this state, resigned last month as manager of one of the Traer Farmers Elvtr. Co.'s elevators, a position she has held for nine years. She is to be married soon to Orville Stover, of Waterloo. A. A. Agnew, of Whitten, Ia., has been appointed to succeed her. The Farmers Co. operates two elevators here, one on the Rock Island and one on the North-Western. Ed Hadacek continues in charge of the North-Western elevator.

The following Iowa grain men were elected to city or town offices in the Mar. 30 election: Farnhamville (mayor), H. H. Grove, manager Farmers Elvtr. Co.; Whiting (councilman), Carl Streeter, manager South Side Elvtr. Co.; Schaller (mayor, third term by large majority), S. W. Eastlack, manager Farmers Co-op. Co.; Greenfield (mayor), J. E. Foster, manager Farmers Elvtr. Co.; Mediapolis (mayor), F. G. Wright, Wright Grain Co.; Morrison (councilman), Herman Stock, manager Farmers Elvtr. Co.; State Center (councilman), Elmer Goodman, of Goodman & Meade.—A. G. Torkelson.

KANSAS

Russell, Kan.—Newton Gray, on Mar. 16 became associated with the Russell Milling Co. at this point. He was formerly in the Salina office of B. C. Christopher & Co.

Skiddy, Kan.—The Skiddy Grain Co.'s elevator, operated by Cyrus Huxtable, was damaged by fire recently, believed to have been caused by robbers in attempting to pilfer gasoline from the engine house.

Beloit, Kan.—R. W. Dockstader, grain and elevator man of this city, has bot the 500-barrel mill of the Beloit Milling Co. R. J. Fittel, manager for the former owner, has been retained in the same capacity. The Beloit Co., one of the oldest milling concerns in northern Kansas, will be liquidated as a corporation.

Altoona, Kan.—The Lloyd Elvtr., operated by Hansen & Reynolds, was visited by thieves about 7 p. m., Mar. 9, and nearly \$100 and gas and rent receipts taken. An equal amount of money in a drawer under the counter was overlooked by the robbers. Entrance was gained by prying open the screen and main doors.

Neola, Kan.—Philip Haney, for several years with the Midwest Grain Co. in Turon, Kan., has been made manager of the company's elevator here.

KENTUCKY

Kevil, Ky.—The corn and grist mill owned and operated by Robert Campbell burned during the night of Mar. 13. Mr. Campbell carried no insurance.

Leitchfield, Ky.—G. C. Earles, former jailer of Grayson County, has leased the Leitchfield Milling Co.'s plant from E. W. McClure and took charge of the business Mar. 16.

Ludlow, Ky.—Big Four Mills, incorporated; capital stock, \$99,950; incorporators: Sidney Taylor, W. S. Howell and L. C. Boyatt; to deal in grain, coal, building supplies and livestock.

Frankfort, Ky.—The Unfair Practices Act has been signed by Gov. A. B. Chandler and is now a law. According to its provisions, persons who engage in cut-throat competition by selling below cost or who engage in any unfair trade practices are liable to prison terms up to six months, fines of from \$100 to \$1,000, court injunctions and damage suits. Three times the amount of actual damages could be collected by a plaintiff, and an offender could be deprived of his right to do business on a third violation of the law.

LOUISIANA

New Orleans, La.—The Continental Grain Co. has returned Benno Feuer, from its Geneva, N. Y., branch, to this city, where he is with the J. T. Gibbons Co., a subsidiary of the Continental Co.

MARYLAND

New Windsor, Md.—A corn cutter and grader was recently added to the equipment of Devilbiss Bros.

MICHIGAN

St. Charles, Mich.—Thomas Collins' grist mill burned during the morning of Apr. 1; loss, \$5,000; partly insured.

Otsego, Mich.—Oscar W. Pike, of Silver Creek, has leased the local feed mill from his brother, Vern H. Pike, and is now operating it.

Three Rivers, Mich.—We have made arrangements for the opening of a new farm supply store at Three Rivers this month.—Reynolds Hay & Grain Co. (Centerville, Mich.)

Rose City, Mich.—Two buildings of the Rose City Elvtr. Co. burned Mar. 29, at night; loss, estimated at \$40,000, including 5,000 bus. of grain; insured. Origin of fire believed to have been a cigarette.

Bellevue, Mich.—The Bellevue Co-op. Elvtr. Co.'s elevator was broken into during the night of Mar. 24, but the intruders found the safe unlocked and no money in it. Notes and other papers that were in the safe were found scattered on the street near by.

Hillsdale, Mich.—F. W. Stock & Sons are having six additional storage tanks constructed at the end of their present stand of tanks, thereby increasing their storage capacity by 200,000 bus. The work is being done by the Burrell Engineering & Const. Co.

Battle Creek, Mich.—Burglars, believed to have hidden themselves in the A. K. Zinn & Co.'s grain and feed plant on Saturday afternoon, Mar. 28, before the plant was closed, broke open the safe in the office and stole \$643 in cash and \$150 worth of stamps.

Charlotte, Mich.—The former Belden & Co. bean and grain elevator here has been purchased by the Minor Walton Bean Co., of Grand Rapids, which also owns the former Shepherd Elvtr. here. The Belden buildings are being dismantled and some of the machinery is being transferred to a new building being constructed by the Minor Walton Co. on the Grand Trunk Railway tracks.

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MINNESOTA

Lake City, Minn.—A one-ton batch mixer may be added to the equipment of the Independent Grain & Coal Co.

Truman, Minn.—The business and equipment of the Home Oil Co. has been taken over by the Farmers Elvtr. Co.

Wendell, Minn.—A new grain cleaner and a treating machine have been installed in the H. M. Veldey Elvtr. here.

Belle Plaine, Minn.—A 60-h.p. diesel engine and a new grain cleaner were recently installed by the Hoelz Milling Co.

Luverne, Minn.—The Farmers Co-op. Co. is considering remodeling its office and building new coal sheds this year.

Windom, Minn.—A mixed feed business will be added to the elevator and seed business of the Thompson Lands Co.

Sleepy Eye, Minn.—The Farmers Elvtr. Co. has added a one-ton feed mixer to its equipment and made some minor changes at the plant.

Worthington, Minn.—A new one-ton feed mixer and a large corn cracker have been installed in the Farmers Co-op. Elvtr. Co.'s elevator.

Sherburn, Minn.—A new loading platform will be erected and a new scale installed at the Packard Elvtr. Co.'s elevator in the near future.

Lime Creek, Minn.—It is planned to rebuild the elevator leg and install an electric motor at the elevator of the Farmers Elvtr. Co. this summer.

Barnum, Minn.—The L. & L. Feed Co.'s plant is to have an addition built to it this spring, to be 12x70 feet. A grain cleaner will be installed also.

Fulda, Minn.—Installation of a new 10-ton scale and remodeling of its office this summer are contemplated by the Farmers Co-op. Commission Co.

Morgan, Minn.—The Morgan Milling Co. recently installed a one-ton Daisy Horizontal Revolving Drum Batch Mixer, made by R. R. Howell & Co.

Stillwater, Minn.—The business of the Farmers Buying Ass'n. which operated an elevator and was conducted by Tom Curtis, has been liquidated and closed.

Morgan, Minn.—The elevator driveway at the Morgan Grain Co.'s elevator will be widened, the dump lengthened and a 20-ton scale recently purchased installed.

Dundee, Minn.—The Farmers Elvtr. Co. recently completed a new driveway at its elevator. Installation of a new grain cleaner this summer is being considered.

Heron Lake, Minn.—Installation of two overhead motors to operate the elevator leg is planned by the Farmers Co-op. Elvtr. Co., of which Martin Loe is the manager.

Evan, Minn.—A. J. Fazendin, of Morgan, has taken over the management of the Evan Grist Mill. Albert Trapp erected the mill about three years ago and has managed it ever since.

Alpha, Minn.—Installation of an up-to-date truck lift is contemplated by the Alpha Grain Co.

Kinbrae, Minn.—A new motor has been installed in the air compressor at the elevator of the Kinbrae Grain Co. Painting of the elevator is the next improvement contemplated.

Benson, Minn.—Lang Grain Co., incorporated; capital stock, \$12,000; incorporators: E. Lang, R. M. Lang and A. Lang; to conduct a general grain business. This is an old established company.

Springfield, Minn.—T. E. Hier & Sons have added to the equipment of their feed plant a one-ton Daisy Horizontal Revolving Drum Batch Mixer, manufactured by R. R. Howell & Co.

Henning, Minn.—Some new elevator equipment, including a cleaner and a corn sheller, has been installed by Paul H. Gust. A head drive and manlift will be added later and the leg rebuilt.

Frazee, Minn.—The local elevator of the Victoria Elvtr. Co. has been enlarged by the addition of two bins, the driveway has been repaired and a new head drive, leg belt and elevating cups installed.

Olivia, Minn.—The Osborne & McMillan Elvtr. Co. will start work soon on the erection of a new 25,000-bu. elevator, to replace the fire loss of last February, to be of frame construction with sheet metal siding.

Dassel, Minn.—The door of the Farmers Elvtr. Co.'s elevator was jimmied during the night of Mar. 17, the combination knocked off the safe and cash stolen estimated to have been between \$25 and \$40.

Kerkhoven, Minn.—An additional truck dump will be installed and the elevator of the Farmers Elvtr. Co. painted as soon as the weather permits. A truck dump was recently installed and the elevator overhauled.

Winnebago, Minn.—The business of the Winnebago Feed Mill, of which Harold Driscoll, deceased, was the owner, will be continued by his widow. Mr. Driscoll died recently from injuries received in an automobile accident.

Good Thunder, Minn.—The two local elevators of the Good Thunder Grain Co. will be improved as follows: A half-ton batch mixer will be installed, new feed warehouse and coal sheds built, and both elevators and the office remodeled and repaired.

Minnesota Lake, Minn.—Among improvements contemplated by the Fleischmann Malt-ing Co. at its local elevator are installation of a 20-ton scale, enlargement of the pit and putting in a new steel boot tank. Also some changes will be made in the driveway.

Benson, Minn.—The Benson Market Co. will replace its old elevator, which it is taking down, with a new 54,000-bu. one, double the size of the former house, and will install three types of cleaning units. The company's office will be remodeled also, and the entire plant covered with galvanized iron.

Hutchinson, Minn.—The old Hutchinson Mill, which, together with the machinery, was the property of Z. E. Bolduc, burned last month; loss, several thousand dollars. The building was being used by the Farm Service Stores, a subsidiary of General Mills, and more than \$9,000 was lost in grain, feed, seed, flour, twine and other products. General Mills plans to build an up-to-date elevator, feed mill and warehouse here as soon as negotiations can be arranged.

Tyler, Minn.—The regular monthly meeting of the Western Grainmen's Ass'n was held here on Mar. 10, at Blakesley's Cafe. In the absence of Pres. Iver Wollum, A. F. Nelson, of Minneapolis, was elected chairman of the meeting. Methods of treating seed grain were discussed and also the matter of securing the removal of switching, hold and reconsigning charges at terminals. Regarding the latter, a telegram was sent to the Minnesota Railroad & Warehouse Commission, urging the restoration of the extra free day. Several violin selections afforded entertainment for the gathering.

DULUTH LETTER

Harry B. Stoker, local manager for the Van Dusen-Harrington Co., who has been up at Winnipeg taking care of business for the company, returned home last week.—F. G. C.

Adolph C. Albachen, local freight agent for the Northern Pacific Railroad for 23 years, was retired Mar. 31, and will be succeeded by M. H. Hancock, agent at Brainerd, Minn.—F. G. C.

John C. Campbell, Jr., was elected a member of the Duluth Board of Trade early this month.—F. G. C.

Explosion of grain in a grinder at the Nelson & Peterson Feed Mill resulted in a \$25 loss by fire.—F. G. C.

Patrick D. Sheehan, age 65, a resident of Duluth for many years, died at a local hospital, Mar. 29. Mr. Sheehan was formerly agent here for the Western Weighing & Inspection Bureau.—F. G. C.

The Duluth Board of Trade has changed its hours of trading to coincide with those of the Chicago exchange. The Duluth Board now opens at 8:30 a.m. and closes at 12:15 p.m., central standard time.

A 20,872-bu. lot of Canadian barley held in bond in a local elevator all winter was recently loaded in cars and railed out for delivery, Mexico City, Mex. That leaves only about 500,000 bus. of Canadian spring wheat left in store here.—F. G. C.

J. A. MacInnes, Duluth manager for the Occident Terminal Co., division of the Russell Miller Milling Co., and J. F. Barry, Board of Trade manager for Thomson & McKinnon Co., returned last week from a month's trip by motor thru the West. They reported a great trip and fine time but were glad to get back home.—F. G. C.

Fitting out boats wintering in the Duluth-Superior harbor is being pushed more generally in preparation for an active lake shipping season during 1936. Vessel interests hold out hopes for an early opening of navigation, but the backward spring, with its snow furries and low temperatures does not look very encouraging. The general opinion is that interlake movement will not become effective until about May 1. In anticipation of increased traffic to move, some additions have been made recently to fleets, thru transfer of ownership, or reconditioning boats for active operations.—F. G. C.

MINNEAPOLIS LETTER

David T. Tenney, president of the Tenney Co., has been moved from a hospital in Miami, Fla., to this city.—F. G. C.

The Chamber of Commerce decided to change its trading hours, after the Winnipeg exchange had done so, to conform to the change made by the Chicago Board of Trade when that city went on eastern time. Local trading now begins at 8:30 a.m. central standard time.

The Bunge Elvtr. Co. has awarded contract for the construction of a 1,250,000-bu. concrete elevator and a 100,000-bu. work house to the H. N. Leighton Co. The new house will adjoin the company's 1,250,000-bu. Midway Elvtr. Construction started the week of Mar. 30, completion to be about July 15.

The death of Charles P. Crangle, former president of the Western Elvtr. & Grain Co., of this city, occurred at Pasadena, Cal., on Mar. 28. After services in the California city where he made his home for several years, the body was shipped to Minnesota, for burial at Winona. Mr. Crangle, who was 61 years of age, retired about five years ago. His widow and two daughters survive him.

MISSOURI

Appleton City, Mo.—R. McConnell recently installed a corn cutter and grader.

Kansas City, Mo.—New Board of Trade members include Elmer W. Reed, vice-president and general manager of the Shellabarger Mill & Elvtr. Co., Salina, Kan., on transfer from J. B. Smith, former general manager.

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Pleasant Hill, Mo.—The Moundridge Milling Co. sustained damage to electrical equipment on Mar. 20.

Kingsville, Mo.—The elevator buildings and stock of J. W. Howard, P. F. Reidy and Jack Hobbs were destroyed by fire of undetermined origin on Mar. 28.

Lebanon, Mo.—On Mar. 29, fire originating in a dust collector destroyed the mill building of the Laclede Roller Mills Co., and damaged stock of six to seven thousand bus. of wheat and considerable flour.

Kansas City, Mo.—Altho he does not intend to practice law, E. A. Cayce, secretary of the Checkerboard Elvtr. Co., of this city and St. Louis, and manager of the local division, recently passed the Missouri state bar examination.

MONTANA

Corvallis, Mont.—Some new equipment, including another batch mixer, will be installed by John Haux at his Corvallis Feed Mill & Service Station, this spring.

Denton, Mont.—A cylinder cleaner and smut treating conveyor unit are being installed by the Montana Elvtr. Co. here for the convenience of the local trade. The Victor Const. Co. is making the installation.

Kalispell, Mont.—The contract has been let by the Equity Supply Co. for repairs and alterations to their elevator and warehouses including the widening of the driveway and reconstruction of the new office attached and installation of a 20-ton Howe dump scale, 26x9 foot platform, with a 68-inch Strong-Scott Pneumatic Lift, three new Strong-Scott Head Drives with individual and totally enclosed motors and sliding distributors and new spouting. The pits are to be overhauled including installation of one extra large boot pan and Strong-Scott full floating ball-bearing boots installed in three legs. A 10-ton Howe Dump Scale, 8x18-foot platform, is also to be lengthened to an 8x22-foot platform and an automatic scale installed in the cupola. A two-coat aluminum paint job for the entire plant, applied with pneumatic air brush is also contemplated. The Victor Const. Co. was awarded the contract for this work.

NEBRASKA

Nebraska City, Neb.—A complete elevator with storage bins has been built by the Edward Bartling Seed Co. here, for the handling of seed corn and cleaning of farm seeds.

Merna, Neb.—John Fritz, employed at the local elevator of John R. Jiridon, suffered severe lacerations of his left hand, on Mar. 21, when he caught it in a swiftly moving belt, one finger being so badly torn that it was necessary to amputate it.

York, Neb.—John F. Grosshans, a grain dealer here for many years, died on Mar. 20, after a long illness, at the age of 68 years. He came to York 28 years ago and operated elevators in Clay, Hamilton, Fillmore, York and Butler counties until his health failed.

Cozad, Neb.—The Denver Alfalfa Milling & Products Co., which operates the large alfalfa mill here just south of the Union Pacific tracks, has begun the construction of another complete milling unit consisting of two buildings, one to house the milling equipment and the other to be used as a warehouse. The mill building will be 36x28 feet, the warehouse 26x100, both on cement foundations, the latter building being braced with steel frames on the inside and covered with galvanized iron outside. Equipment will include a large dehydrating machine. Gas heat will be used in curing the hay while this machine is in operation. The capacity of the new plant will be between 30 and 40 tons per day.

Davey, Neb.—Sam Wright is the new manager of the Davey Farmers Co-op. Co.'s elevator. Mr. Wright has moved his family to this point from Kennard.

Hallam, Neb.—William Burk, who has been in the grain business here for the past 30 years, recently severed his connection with the Derby Grain Co. and has been succeeded by William W. Bennett, who has taken charge. Mr. Burk will assist him for about 30 days, after which he will assist his son, who operates their own elevator at Hickman, Neb.

Lexington, Neb.—Albert Kjar, whose elevator burned on Feb. 20, as previously reported in the Journals, has decided to rebuild, and has given the contract to the W. H. Cramer Const. Co. for the erection of a 15,000-bu. elevator, of crib construction, iron clad. The new building will be built on the foundation of the former structure, and will be up-to-date in every respect, machinery and equipment being of the latest type. A feed grinding room will be an important part of the new structure. Work started last week.

NEW ENGLAND

Danvers, Mass.—One of the largest failures in the local grain trade of recent years was the bankruptcy proceedings, filed voluntarily, in the U. S. District Court here, by Reuben W. Ropes, of Salem, who conducted a grain business in Danvers. Total liabilities were reported as \$52,875; assets, \$39,687.—L. V. S.

Providence, R. I.—A. Lincoln Estes, long with Anheuser-Busch, Inc., in the Providence district and more recently manager of its branch in Newark, N. J., has joined the staff of James H. Knowles & Son, Boston flour brokers. He will make headquarters at Providence and have charge of sales in Rhode Island and Connecticut.—L. V. S.

Boston, Mass.—The second luncheon-meeting of the Boston Grain & Flour Exchange was held Apr. 7. Guest speaker was Dr. O. M. W. Sprague, of the Harvard Business School, who spoke on "The Relation of Price to Distribution," touching on possibilities of inflation, particularly with reference to what effect such a development might have on the grain, feed and flour trade.—L. V. S.

Boston, Mass.—During March the receipts of grain and feed at Boston, tabulated by the Boston Grain & Flour Exchange, included: 8,600 bus. of wheat, making 1,027,700 bus. since Jan. 1; 150 bus. corn, bringing the year's total up to 300 bus.; 5,600 bus. oats, jumping the total up to 63,630 bus.; 12,600 bus. malt and 42,600 bus.; 744 tons mill feed and 1,839 tons; 395 bbls. cornmeal and 772 bbls.; 24,290 cs. and 1,615 sacks oatmeal, making 73,795 cs. and 7,884 sacks. Flour receipts for March were 128,015 bbls., making 321,520 bbls. since Jan. 1. No barley nor rye was brot to Boston in March.—L. V. S.

NEW YORK

New York, N. Y.—Lamson Bros. & Co. announce the opening of an office at 50 Broadway, on the 34th floor, in charge of Joseph H. Mathews, manager. The office is equipped to render complete brokerage service.

NORTH DAKOTA

Tolna, N. D.—The Tolna Farmers Union Elvtr. on Mar. 2, was damaged by wind.

Hazelton, N. D.—L. W. Berkholtz, owner of one of the two elevators here which burned on Feb. 26, is planning to rebuild in May.

Hickson, N. D.—The store of the Equity Elvtr. & Trading Co. was entered by burglars during the night of Mar. 10. Goods to the amount of \$25 were stolen.

Sheyenne, N. D.—Owen Egggar, of White Rock, S. D., has been appointed manager of the Sheyenne Elvtr. & Trading Co.'s elevator, succeeding A. W. Selander, who recently resigned.

Brocket, N. D.—A new feed mill and two large feed storage bins have been completed by the Equity Elvtr. & Trading Co. in connection with its new 40,000-bu. elevator. The J. H. Fisch Co. had the contract.

Garrison, N. D.—The Osborne & McMillan Elvtr. Co. has appointed Bernard Mahowald manager of its local elevator, following the resignation of Ernest Tank. For the past few months Mr. Mahowald has been employed at the Schneider Elvtr. Co.

Rocklake, N. D.—The Farmers Grain Co.'s elevator burned last month, together with 4,000 bus. of oats and some coal.

Grand Forks, N. D.—Approximately \$25,000 in capital stock has been subscribed for the Grand Forks Terminal Elvtr. Co., which plans to build a 500,000-bu. elevator here, as previously reported. The company plans to sell between \$100,000 and \$125,000 in stock.

Williston, N. D.—The Farmers Union Co-op. Ass'n has awarded contract to the T. E. Ibberson Co. for the construction of a feed mill unit in connection with its poultry plant. The building will be 40x38 feet, 40 feet high, and will be furnished with equipment for cleaning, mixing and grinding feeds.

Garrison, N. D.—The Board of Railroad Commissioners of North Dakota, as trustee for receipt holders of the insolvent Southey Grain Co., of this city, has brot action in district court at Minneapolis for the recovery of 42 carloads of grain claimed to have been shipped to 14 Minneapolis elevators and milling companies.

Hazelton, N. D.—It is believed that the elevator fires of January and February, in which the Occident Elvtr. Co.'s house and the Berkholtz elevator, respectively, were destroyed (as previously reported), were of incendiary origin and a rigid investigation is under way by representatives of the insurance companies and the elevator companies' officials.

Absaraka, N. D.—The local Farmers Ass'n is reported to have won its suit against the Citizens Insurance Co. of New Jersey to recover for grain stored in its elevator at the time the latter was destroyed by fire. The North Dakota Railroad Commission acted as trustee for the elevator company and the storage ticket holders. The amount of \$429 plus 6% interest since Apr. 29, 1933, was awarded, being the amount asked.

OHIO

Collins, O.—The Collins Co-op. Co. plans installing a new feed mixer soon.

Columbus, O.—The Ohio Millers State Ass'n will hold its annual convention in this city Apr. 16 and 17, at the Neil House.

Whitehouse, O.—The Whitehouse Grain & Supply Co. recently installed in its elevator a new 50-h.p. hammer mill, furnished by the Sidney Grain Mch. Co.

Cleveland, O.—Charlie Clark, of the jobbing firm of Shepard, Clark & Co., is reported to be in a serious condition in St. Alexis Hospital, following a stroke on Mar. 21.

McComb, O.—The McComb Farmers Co-op. Ass'n has added some new elevator equipment, including boot sheller, dump equipment, etc., which was purchased from the Sidney Grain Mch. Co.

Marion, O.—Old Fort Mills, Inc., established recently to manufacture soybean meal, as previously reported in the Journals, have started manufacturing mixed feeds which contain soybean meal.

Sherwood, O.—The local elevator has recently been purchased from the Bryan Transfer Elvtr. Co. by Harley E. Doud, of Ney, who expects to make extensive improvements. He will operate the feed, grinding and coal business immediately.

London, O.—F. J. Wood & Sons will soon start the erection of a 170,000-bu. concrete grain storage addition to their 100,000-bu. elevator, the new bins to be the same size as the old ones. Arthur Clemans has the contract for the construction.

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Columbus, O.—Edgar Daniel McAlister, retired grain dealer, died Mar. 18, in St. Anthony's Hospital, from pneumonia, at the age of 73 years. For many years he and his brother, Guy McAlister, who survives him, were in the grain business on Third St., this city.

Springfield, O.—The Ohio Farmers Grain & Milling Co.'s property has been sold to a group of banks holding a judgment against the company, and a long-time lease has been given to the Union National Mills, which have been operating the property for several months.

Rex (New Carlisle p.o.), O.—Burglars brot their own truck with them to the local elevator of the J. B. Studebaker Elvtrs., during the night of Mar. 26, broke open a window, opened a door from the inside, loaded a 600-pound safe into the truck, with all its contents, including \$500 cash and valuable papers.

Toledo, O.—Arthur E. Trost, Jr., has been elected president of the Toledo Grain & Milling Co., succeeding his uncle, the late E. L. Camp, and his grandfather, Daniel W. Camp, Sr. The company operates a line of country elevators in Ohio and Michigan, besides a number of distributing warehouses in Ohio, Pennsylvania and West Virginia.

Columbus, O.—The Ohio Grain, Mill & Feed Dealers Ass'n's year book for 1936 is off the press, and those desiring copies may obtain them by writing to Sec'y W. W. Cummings of the ass'n, P. O. Box 266, Columbus, and remitting \$3. This directory contains the names of hundreds of elevator companies, the capacities of the elevators, railroads on which situated, names of managers, etc.

Waverly, O.—The Scioto Valley Grain Co., the incorporation of which was reported in the Mar. 11 Journals, has established offices on the second floor of the post office building. The articles of incorporation provide for the handling of grain, feed, lumber, coal and livestock. A feed department will be established as soon as a suitable location can be found, where a complete line of commercial feeds will be handled. The Haynes (who compose the new company) are well known here, having conducted the C. E. Haynes Milling Co.

Sandusky, O.—The 57th annual convention of the Ohio Grain, Mill & Feed Dealers Ass'n will be held at Cedar Point, this city, on June 22 and 23, convening at 10 a. m. Monday morning. Some very interesting and instructive speakers will appear on the program, and special attention will be given to the entertainment features, including beach games, boat rides, bathing, etc., at this popular summer playground, which can be enjoyed by the entire family. The banquet will be held on the evening of June 22, to be followed by a special dancing party for grain men and their ladies. Plenty of free parking space will be provided.

OKLAHOMA

Ada, Okla.—The Holbird Feed & Mill Co. has improved its equipment by the installation of a corn cutter and grader.

Enid, Okla.—The 39th annual convention of the Grain Dealers Ass'n of Oklahoma will be held in this city May 22 and 23, at the Youngblood Hotel.

Yale, Okla.—The Davis Produce Co. and the Yale Produce Co. have consolidated, the new company being the Davis & Stewart Produce Co., which wholesales feed and flour and carries a line of millfeeds, seeds and country produce.

Enid, Okla.—W. B. Johnston, one of Oklahoma's oldest and largest independent grain dealers, having several elevators in this state and in Texas, opened a downtown store in this city, on Mar. 14, for the convenience of his farmer customers. Complete lines of feed, seed, implements and other supplies are carried. A full day of entertainment was provided for visitors on the opening day. Mr. Johnston has been continuously in the grain business since 1893, when he moved into northwestern Oklahoma at the opening of the Cherokee Strip.

PACIFIC NORTHWEST

Lewiston, Ida.—The Pacific Northwest Grain Dealers Ass'n's 16th annual convention will be held in this city June 12 and 13.

Seattle, Wash.—The local elevator which the Northwestern Dock & Elvtr. Co. has leased for years from one of the northern railroads, will be relinquished at the end of the year, it is reported.

Seattle, Wash.—The trading hours of the Seattle Grain Exchange are now from 8 a. m. to 10:20 a. m. daily, except Saturday, when the closing time is 9:05 a. m. The change was made Mar. 19.

Corvallis, Ore.—Equipment is being installed by the Golden West Milling Co. in the plant formerly known as the Merchants Milling Co. The daily capacity of the mill will be 30 tons of feed and 300 barrels of flour.

Condon, Ore.—H. M. Bull, of Moro, Ore., has been employed by the Condon Grain Growers' Co-op. Ass'n as its manager, succeeding L. J. Lucas, who died recently. For the past several years Mr. Bull has been employed by Kerr Gifford & Co. as grain buyer.—F. K. H.

Newberg, Ore.—Because of taking damp wheat in storage, the Chehalem Valley Mills has lost a damage suit for \$4,500, the farmer who sold the wheat claiming full market price for first-class wheat, despite the fact that his warehouse receipt cited that his wheat was damp on arrival. The milling company will appeal to the State Supreme Court.

Waitsburg, Wash.—The Preston-Shaffer Milling Co. on Mar. 10 discontinued all retail sales, including rolled feeds, also exchange of flour or feed for whole grain. V. T. Hirsch has bot the company's chop mill equipment. "The intricate accounting necessary to satisfy state and government requirements together with the multitude of separate taxes, make it inadvisable to operate a retail business in connection with a manufacturing plant whose principal outlet is at wholesale," says the Preston-Shaffer Co. in its announcement of the change. The company will continue to manufacture flour.

PORTLAND LETTER.

Portland, Ore.—The Portland Grain Exchange on Mar. 19 went on a new time schedule, advancing the closing time one hour, now opening daily at 8 a. m. and closing at 10:20 a. m., except on Saturdays, when the closing hour is 9:05 a. m.

Portland, Ore.—Joseph W. Ganong, former export manager of Kerr Gifford & Co., and a pioneer in the milling industry of the Pacific Northwest, died at his home in this city on Mar. 24, at the age of 73 years. He retired from all business activities a few years ago on account of ill health.

Portland, Ore.—The grain com'te of the Portland Merchants' Exchange has announced a change in the discount schedule (effective Mar. 23) regarding dockage. Wheat grading below No. 1 on account of containing inseparable foreign material, damaged kernels or other cereal grains, shall be subject to the following discounts: If m. e. o. g. (material except other grain) designated as cobs, stems and chaff—No. 2, 1 cent per bu.; No. 3, 2 cents per bu.; No. 4, 3 cents per bu.

Portland, Ore.—Regarding new practices in handling and reporting grain transactions, instituted recently by the Portland Grain Exchange, an official announcement says: "In order to post a cash close reflecting the actual selling value of daily arrival of grain for sale on the cash tables each day, the Portland Exchange has arranged to determine as accurately as possible and post publicly the full amount processors or handlers will pay for spot arrivals and grain to arrive. Specified minimum commissions for selling consigned cash grain have been set up in the exchange rules. . . . These commissions, as well as freight and inspection charges, must be deducted from the new cash values now being posted in order to reflect net values to sellers at country points. Commissions have been fixed at the minimum for which a merchant can afford to handle a car and get for his shipper the benefit of a full canvass of the buying market for spot grain."

SOUTH DAKOTA

Okaton, S. D.—The elevator of the Okaton Grain Co., taken over by Ryan Bros. recently, will be operated under the former name by the new owners. The former owner, A. E. Odegaard, it is reported, may engage again in the grain business.

Bradley, S. D.—Death came to James D. Bradley, former grain buyer at this point for the Empire Elvtr. Co., of Minneapolis, following an operation in a St. Paul, Minn., hospital. Mr. Bradley, who was 76 years of age, had served a term in the state senate, and was active in civic and church affairs.

Hurley, S. D.—Harry Benson has been appointed manager of the Fleischmann Elvtr. at this point, taking over the position on Mar. 13.

SOUTHEAST

Columbia, S. C.—The Liberty Seed & Feed Co. has been formed here and incorporated by R. C. McCall and J. O. Allgood.

Wilson, Miss.—Wilson Feed & Seed Co., incorporated; capital stock, \$500,000; incorporators: W. F. Wilson and J. H. and J. F. Crain.

Inverness, Miss.—J. R. Bradley and Robert Baird have organized a new feed brokerage business under the name of the Inverness Brokerage Co.

Washington, D. C.—The Wilkins-Rogers Milling Co. has installed a No. 50 direct-connected Blue Streak Hammer Mill, with enclosed motor, for screenings.

Jackson, Miss.—Employers of eight or more persons in this state, effective Apr. 1 are subject to the new unemployment compensation act, which requires them to contribute 1.2% of wages paid for the remainder of 1936, 1.8% for 1937 and 2.7% for 1938 and 1939. No contributions are required of employes, as in some states.

TEXAS

Fort Worth, Tex.—The Texas Grain & Feed Dealers Ass'n will hold its 40th annual convention in this city on May 19 and 20.

Pampa, Tex.—Harry Kearns, in the grain business at Amarillo for a number of years, is reported to be erecting a 100-barrel flour mill at this point.

Amarillo, Tex.—The 22nd annual convention of the Panhandle Grain Dealers Ass'n. will be held at the Herring Hotel, this city, on Friday and Saturday, May 15 and 16. A fine program is being prepared.

Amarillo, Tex.—The Texas Wheat Growers Ass'n, according to J. Frank Triplett, of this city, manager, is building 13 farmer-owned and controlled elevators this year, averaging between 20,000 and 25,000 bus. capacity each, expected to be completed in time to handle the 1936 crop. The ass'n already has 44 elevators in operation, two of which are in New Mexico, the rest in Texas. A 500,000-bu. elevator is operated at Amarillo.

Denton, Tex.—E. W. Morrison, former vice-president of the Thomas Page Mill Co., of Topeka, Kan., has purchased the properties and business of the Alliance Milling Co., and a new corporation, to be known as the Morrison Milling Co. will soon be formed. Mr. Morrison and associates will own 80% of the stock and E. G. Rall and his son, Marvin, present stockholders of the Alliance Co., will own the balance. The Ralls operate a grain business at Ft. Worth. The properties of the company consist of 200,000 bus. grain storage (including an elevator and tanks here, and country elevators at Ponder, Myra and Sanger, Tex.), a mixed feed mill, a 125-barrel cornmeal mill, a 500-barrel flour mill and a self-rising plant.

WISCONSIN

Grafton, Wis.—The Grafton Flour Mill property has been bot by the Badger Worsted Mills, and the three-story building will be used for the packing and shipping department of the new owners.

Milwaukee, Wis.—A recent heart attack proved fatal to George F. Kuecker, manager of the LaBuddle Feed & Grain Co.'s hay department, and a pioneer in the feed and hay business of this city.

Milwaukee, Wis.—The annual election of officers of the Milwaukee Grain & Stock Exchange, held Apr. 6, resulted as follows: Pres., J. V. Lauer; first vice-pres., E. S. Terry; second vice-pres., Curt Kanow; sec'y and treas., H. A. Plumb.

Hilbert, Wis.—Simon Schwabenlander, proprietor of the Hilbert Elvtr., plans on making a number of improvements at his elevator this summer, including some, if not all, of the following: Elevator leg, head drive, spouting, magnetic separator, car loader, seed treating machine, loading spout, boot, belting, manlift, buckets, bin valves, fire extinguishers or barrels. steel roofing and painting the elevator.

From Abroad

Buenos Aires, Argentina.—Official estimates promise a 380,000,000 bu. Argentine corn crop this year, compared with the 451,943,000 bu. record crop last year. The average annual production is 304,856,000 bu.—Agricultural Attache P. O. Nyhus.

London, Eng.—The British import duty on soy bean cake and meal, soy bean oil, sunflower seed oil, and safflower seed oil was increased from 10% to 20%, ad valorem, on Mar. 11. British imports of the cake, meal and oil have increased greatly in the last few months.

Argentina during the past ten days has received showers and heavy rains, which will replenish the subsoil moisture shortage and prepare the land for seeding next year's flax crop. The high minimum price of fourteen pesos is expected to stimulate seeding.—Archer-Daniels-Midland Co.

The duty-free importation of 10,000 metric tons of wheat for feeding poultry was authorized by royal decree, law No. 248, published in the Gazzetta Ufficiale, Rome, of Feb. 27. The Ministry of Finance is authorized to issue the necessary regulations for carrying out this measure, which is to remain effective only until June 30, 1936.

A Machine for Dusting Seed Grains

C. E. Skiver, of the staff of the Agricultural Experiment Station of Purdue University, gets the credit for development of a new machine for economically treating seed corn, oats, barley, wheat and other grains with mercuric or copper carbonate dusts. Such dusts have demonstrated their ability to control the various forms of smuts that affect small grains, and the molds that affect corn.

The new machine, first used in connection with the seven seed wheat grading and treating machines that traveled over Southwestern Indiana last year doing educational work among the wheat producers, consists of a container that will hold eight to 10 lbs. of copper carbonate or mercuric dust, a hopper thru which the grain being treated can be poured by hand or from a spout, augers that control the flow of dust and grain together into the mixing cylinder, and the mixing cylinder, the inside of which is fitted with baffle plates to pick up the dust and grain together and drop them thru the dust laden air on the inside of the cylinder. Sacking spouts are provided at the cylinder outlet.

Driven by a ½ h. p. motor, this machine will effectively treat 100 bushels of grain per hour with disease preventive dusts. The machine is carefully designed, and can be so minutely controlled that mixtures of as little as ½

ounce of mercury dust with a bushel of grain can be accurately and thoroly made.

The new machine is being sold at a \$49.50 price that promises a profit from seed treating for every elevator.

Dependable Certification of Bent Grass Seed Needed

Adequate legislation to protect the American bent grass industry from undependable seed certification and from farmer to consumer selling, is sadly needed, says Fred S. Radway, New York seed man, reviewing the certified bent grass seed situation.

"Dealers 3,000 miles from production areas can have seed certified and place their advertising name and address right on the official tags," he says. "The name of the farmer, the cleaner or the eventual dealer should not be permitted to appear on the tag, because this labyrinth of names breaks the market. The one bag buyer and the two bag grower keep up a correspondence school with a never ending argument, which depresses market values.

"The man who owns material or merchandise should receive first consideration. The man who buys, puts his money into stocks, and holds, carries, speculates, barter, and exchanges, takes the real market risk and is the most important factor in commerce. The marketing of bent grass seed rightfully belongs to the one who has an investment and expensive, up-to-date cleaning machinery, to the man who invests and takes his chances on a profit."

But the bent grass seed merchant has no protection in present laws governing seed certification, contends Mr. Radway, who explains that he has been offered certified Seaside bent as late as January, 1936, and earlier purchases actually tested far below Oregon state certification requirements when they arrived. "Some smart county agent used his own printed tags, designating himself as an official county agent, certifying this seed in the capacity of a state county agent, and putting his signature on same," he says. "The accused even used branded bags of a well-known Seaside bent registered trade-mark, whose owner once upon a time made a decent living from refining Seaside and who subsequently, thru changes in fortune, acquired a government position.

"These empty bags, with the good will and good name of the former owner of that trade-mark, are evidently still available, according to offers received recently. I personally call this a 'racket'—one of the many bent grass misunderstandings. Lack of strict regulation has resulted in many freak certifications.

"The state should certify and tag sealed bent grass, give it a serial number and not publish on the tag or elsewhere the name of the originating firm, grower, or cleaner. That is how it is successfully certified and sealed in Canada. No individual names or firm names are mentioned; only the government inspector's name appears on the tag, beside the number."

Supply Trade

Trying to save money by not advertising is like trying to raise chickens without spoiling eggs.

Chicago, Ill.—Alfred Kauffmann has been elected pres. of Link-Belt Co., succeeding Geo. P. Torrence, resigned. Mr. Kauffmann served as president of the company from 1924 to 1932.

Minneapolis, Minn.—J. H. Sinclair, Kenmare, N. D. will cover western North Dakota and eastern Montana and J. H. Harders, Winona, Minn. will cover southern Minnesota, Wisconsin and northern Iowa for R. R. Howell & Co. Jack Johnson will continue to represent the company in eastern North Dakota and the Red River Valley.

The Federal Trade Commission has entered complaint against Building Material Dealers Alliance and others charging the respondent with forming a combination to compel distribution of building materials through "recognized" dealers affiliated with the respondents, and fixing and establishing by agreement, schedules of uniform prices for the sale of building materials and builders' supplies. A hearing was held in Newark, N. J., April 7.

Washington, D. C.—Representatives of the 1,600 member organizations of the Chamber of Commerce of the United States will come together here Apr. 27 to 30 for the expression of views of those engaged in business, on transportation, distribution, manufacturing, federal revenue policies and mounting taxes, and the federal motor carrier act. Too many of the problems before business center in the encroachment of the federal government upon the fields of private business enterprise. Agricultural welfare also is a leading topic to be considered.

A story is floating around that one member of Congress received an A. A. A. payment of \$220,000 for curtailing production. Rep. John Taber and Senator Vandenberg have introduced resolutions demanding a list of those receiving the A. A. A. payments of \$2,000 and up. Sec'y of Agriculture Wallace is resisting this publicity.

"The government's function is to protect economic activities of its citizens and not to supplant them. Governmental withdrawal from private enterprise would reduce governmental expenditures and increase federal revenues. The intrusion of government into competition with private enterprise except in situations where the public welfare can only thus be served, is wholly destructive. It invites and cultivates a growth of bureaucracy."—From Report of Federal Co-ordination for Industrial Co-operation.



Purdue University's machine for treating seed grains with mercuric dusts



WORLD'S LARGEST ELEVATOR

13,000,000 BU.—ALBANY PORT DISTRICT COM., ALBANY, N. Y.

Operated by

CARGILL GRAIN CO., MINNEAPOLIS, MINN.

Equipped with THE GRAIN DRIER WITHOUT A BOILER

That's a Randolph—operated by oil.

Manufactured by

O. W. RANDOLPH CO., TOLEDO, OHIO, U. S. A.

Grain Carriers

Panama Canal traffic in March with 526 transits was the best in the last six years.

The National Industrial Traffic League has opposed continuation of railroad emergency charges beyond the June 30 expiration date.

Thousands of motor vehicle tariffs became effective on April 1. They were filed with the I.C.C. prior to Mar. 31 in accord with the Motor Carrier Act. The Commission received nearly 30,000 tariffs.

In Finance No. 10909, by division 4, the Commission has authorized the M. & St. L. to abandon 36.9 miles of line between Spencer and Storm Lake, Ia. Arrangements have been made with connecting carriers to serve all communities involved. Greenville to Storm Lake, except Cornell.

Boise City, Okla.—Construction of 111.26 miles of new main line track for the Santa Fe railroad from Boise City to Las Animas, Colo., will be begun as soon as materials can be assembled, announces Pres. S. T. Bledsoe. The new line will be a connecting link in rail facilities between Las Animas and Amarillo, Tex.

The reduction of 5½ cents per 100 pounds in the rates on grain, grain products and grain by-products to points in the United States east of Buffalo, Pittsburgh, etc., for domestic consumption, which originally became effective July 1, 1934, and was published to expire with June 30, 1936, has been again extended to expire with June 30, 1937.

A decade ago, according to "Railway Age," only 1,600 motor trucks were operated by all the railroads of the country. By 1930, this number had increased to 7,000 trucks. Last year more than 48,000 trucks were owned directly or indirectly by American railroads, and this year, with a new motor vehicle law in force, a sensational further extension of railroad service to the highways may be expected.

Chicago, Ill.—Car loadings of grains are expected to increase 50%, hay and straw, 25%, flour and meal, 8% in Illinois, Iowa, Wisconsin, western Indiana, and the northern peninsula of Michigan, during April, May and June, according to estimates of the Midwest Shippers Advisory Board. Car loadings are expected to total 686,750 cars, a 14.4% increase over the actual loadings during the same three months last year.

The average earnings per hour of railroad employes in 1916 were 28.3 cents and in 1935, 68.6 cents, an increase of 142 per cent. In other words, in 1935, dividends to stockholders were less than half the dividends of 1916, while the average hourly earnings of employes were nearly two and one-half times greater. It is a fact that the average hourly earnings of employes today are at the peak of all time, not even excepting the war period.—J. J. Pelley, pres. Ass'n of American Railroads.

In Finance No. 10616 the Commission has deferred abandonment of Santa Fe branch line extending 38.73 miles from Havana to Cedar Vale, Kan., for one year, giving communities served an opportunity to demonstrate ability to make the branch earn its way.

Chicago, Ill.—Reductions of 1½ to 4 cents per 100 lbs. on corn and oats moving from northeastern Illinois points to Chicago by rail became effective on the Santa Fe and the Rock Island on Apr. 1; on the E. J. & E. on Apr. 6, and will remain in effect until Dec. 31, 1936. The seasonal reductions are to meet barge competition, and carry no transit privileges, tho they apply on corn and oats transferred to lake ships.

Nashville, Tenn.—Pending a hearing, the Interstate Commerce Commission has ordered continuation of transit privileges at Nashville, Chattanooga and other southeastern points, on grain moving by water thru Gulf points from the Pacific Coast. Grain dealers and mills shipping to the southeast thru Ohio and Missouri river gateways, oppose continuation of the privileges, which were to have expired Mar. 11.

Portland, Ore.—The long controversy between wheat shippers and railroads operating in Oregon to determine whether wheat shipped to Portland for cleaning and grading, and then reshipped abroad, shall pay interstate or intrastate rates came before the federal court here again when the suit filed by Oregon-Washington Railroad & Navigation Co. against the Farmers National Grain Corporation was finally argued before Federal Judge Fee. Ray F. Shields, counsel for the railroad, argued that the grain shipped from Eastern Oregon points to Portland and later consigned abroad was continually in the stream of interstate commerce even tho it halted in Portland for processing and grading. John C. Veatch representing the grain corporation, held that only the lower intrastate rate could be charged by the railroad, inasmuch as there was no definite continuing movement in interstate commerce and that the stream of commerce was broken by the stop in Portland elevators.—F. K. H.

Decisions and New Complaints

Before the Interstate Commerce Commission:

Repairation is asked in No. 27340, Simonds-Shields-Lonsdale Grain Co. v. A. T. & S. F. on wheat rates from Kansas points to West Plains, Mo., subject to transit privilege. Rates claimed to violate Section 1 of the Act insofar as they exceeded currently applicable aggregate of intermediate to and from Springfield, Mo.

Rates on grain, grain products and seeds, Texas origin points to destinations in North Atlantic seaboard territory and foreign countries thru Texas gulf points are considered in violation of section 1, by the Texas Industrial Traffic League in complaint No. 27337, against the Abilene & Southern. Asks hearing same times and places as No. 27166, Clovis Chamber of Commerce and Farmers Grain, Inc., against same.

Minimums of not to exceed 40,000 lbs. on cleaned rice, 36,000 lbs. on rice bran and polish and 50,000 lbs. on brewers rice were recommended by Examiner Hill in five complaints, covering rice rail rates, where truck and barge competition was a strong competitive factor. "As these new or revised means of transport become better organized... an increasing degree of stability will doubtless be imported into their rates," said the examiner,

"enabling rail rates again to stabilize. It may be, as many believe, that a new structure of rail rates will emerge, based in part on standards of reasonableness not heretofore known."

No 25403, Washburn Crosby Co. v. C. B. & Q. et al. Division 4, Rates, carloads, wheat, collected on shipments from Kansas, Nebraska and Colorado to Kansas City, Mo., milled in transit and reshipped to points in Missouri, Iowa, Illinois and Wisconsin change from earlier decision to find that in those instances in which the so-called wheat rates were applicable on shipments of bran, shorts and middlings, when billed as such, the wheat rates were unreasonable to the extent that they exceeded corn rates charged on those shipments; rates applicable on shipments described as wheat mixed feed and commercial mixed feed so-called wheat and corn rates stated to have been applicable on bran, shorts and middlings when billed as such, and that on those shipments of wheat mixed feed and commercial mixed feed on which wheat rates were found to be applicable such rates were unreasonable in so far as they exceeded corn rates charged. Defendants authorized to waive collection of outstanding undercharges.

Temporary Reduction in Western Corn Rates

Pres. W. B. Lathrop, Sec'y Walter R. Scott, and H. J. Smith of the Kansas City Board of Trade, carrying direct to railroad heads a personal appeal for lower rates on corn from tributary territory, after a 10 to 7 vote by the executive com'tee of the Western trunk lines had refused them such relief, won a reduction of 6½ cents per 100 lbs. in existing rates, to expire Aug. 31, 1936. The railroads will petition the Interstate Commerce Commission for authority to make the emergency rates effective on five days' notice as soon as the new tariffs can be prepared.

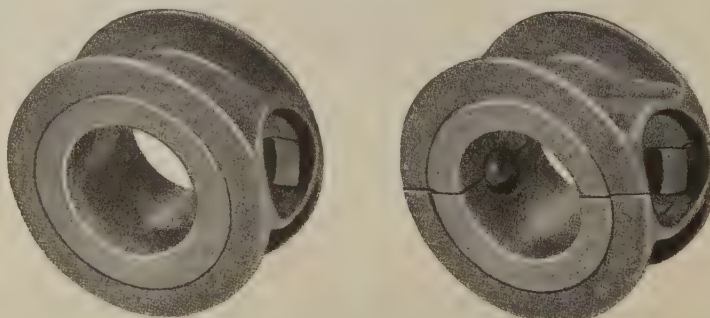
The new emergency rates, which are expected to go into effect about April 20, will apply on corn only from Iowa, northeast Nebraska and southeast South Dakota to southeast Nebraska to southeast Kansas and southwest Missouri. Transit privileges will be allowed.

Safety Set Collars

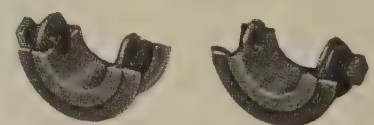
The lives and limbs of elevator workers have been sacrificed to protruding set screws so long it would seem high time for driving the offenders into oblivion. One Boston manufacturer of set screws is delighted to advertise the production of one and one-half million set screws each week. What is especially needed is some means of joining moving machinery by devices which will not contribute to the hazards of workmen.

Illustrated herewith are safety set collars made of certified malleable iron which will stand the excessive abuse in wedging onto shaft, that would ruin a cast iron collar. The malleable iron collar is far stronger and much more durable. Then, too, these safety set collars are flanged so as to reduce the chance of clothing catching on set screw, which is protected in both the solid and the split collars. These special collars are made by the Strong Scott Mfg. Co., with a view to reducing the dangers to those who work about moving machinery.

Our news columns tell of so many disas-



Safety Set Collars of Malleable Iron



trous accidents to those employed in the elevator, it would seem that every elevator owner would see to it that all of his machinery is safeguarded in every possible manner to protect his own life and limbs as well as the life and limbs of others who may come near to death traps.

The expense of safety set collars is so small no elevator owner can afford to continue to use anything else.

Government Will Buy 2,500,000 bus. Wheat

Before the federal government began A.A.A. and Soil Conservation payments the price level of wheat in the Pacific Northwest was regulated by the price obtainable for the export surplus in the markets of the world, freight rates to other parts of the United States, as now, having been prohibitive.

By reason of the processing tax and now under the general taxation, the federal government has at its disposal funds with which to stand the loss on wheat and flour exported or shipped to other parts of the United States, in boosting the price level of wheat in the Pacific Northwest or any other locality of the Union where prices are too low in the opinion of the Sec'y of Agriculture.

Under the old A.A.A. the funds were employed to finance the Emergency Export Corporation, and now are used to stand a loss of 90 cents per barrel on flour exported from the Pacific Northwest to the Far East.

In addition the Sec'y of Agriculture on Apr. 2 approved plans for the purchase of 2,500,000 bus. of Pacific Coast wheat, the government paying the freight from Eastern Washington, Eastern Oregon and Idaho, to flour mills east of the Mississippi River, that will turn it into flour at an allowance for grinding of 50 cents per barrel. Distribution of the flour will be made thru state and local relief organizations.

All the wheat will move on land grant rates and under government Bs/L, about one-half the regular freight charge, at the expense in part of the railroads.

Smut is found in so much of the Pacific wheat that it is expected allotments will be made for grinding only to mills that are equipped to wash smutty wheat. The regular discounts of the Portland Merchants Exchange

will be applied in the purchase of wheat, 40 cents per ton on wheat ranging from 0.5 to 3 per cent smutty, and 65 cents per ton on wheat between 3 per cent and 7 per cent smutty. These discounts will go to the mills to cover their additional expense in handling the smutty wheat.

The purchase will be made before July 1, and the Federal Surplus Commodities Corporation will donate the flour.

Soybean Industry to Be Promoted by Manufacturers

The National Soybean Oil Manufacturers Ass'n has appointed Edward J. Dies of Chicago, executive sec'y, to have charge of administrative and legislative matters as well as to direct the publicity and advertising activities of the Ass'n.

I. C. Bradley, pres. of the Ass'n, says: It is our purpose to promote the interests of all engaged in the industry, from grower to consumer. This can best be done by an organized effort, with closest possible cooperation of all those interested in the progress of the industry.

Rapid expansion of the soybean industry and new uses which are being discovered for the product, have created an increasing number of trade, production, and consumption problems requiring careful study.

The Motor Trucks' share of transportation must be considerable, when in 1935 the highway carriers collected \$2,000,000,000 against \$3,271,567,000 by all Class I railways in 1934.

Ohio corn, sealed in cribs to secure government loans, has not been tested, but promises to come out of the cribs in poor shape, according to federal grain supervisors.

Trembling Driveways

Down in the dump sink a nervous house man screwed up a heavy jack under a worn and cracked cross beam. Above, a nervous manager gave him directions. Then, the jack in position and the house man out of the sink, the manager permitted a heavy truck, laden with 200 bushels of corn, to drive across a weaving approach into the driveway.

The approach creaked and waved like rubber ice, but it held. The driveway protested the strain but it held. When the truck was cleared of corn, and drove back to the scale, the elevator manager heaved a sigh of relief—and prepared to go thru the same strain of wondering whether the driveway and its approach would support the unaccustomed load, when he found another 200 bushel load of corn waiting to be weighed.

"I'm not going to be responsible for you fellows going thru that driveway with such heavy loads," he declared to the driver. "Don't load so heavy."

The driver laughed. "You oughta' have the driveway fixed," he said.

Bad Fire from Portable Lamp

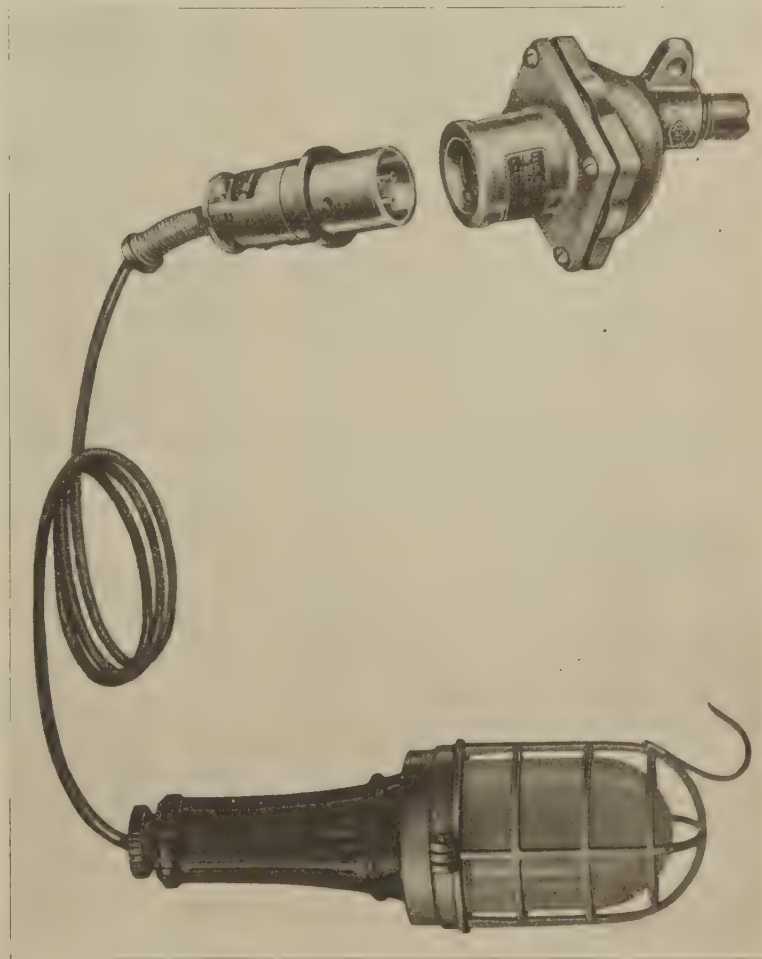
The portable light assembly shown in the engraving herewith was responsible for a bad fire.

The light assembly is sub-standard with regard to the socket and unguarded open bulb. Wherever unprotected lamps are used there is the possibility of a similar disastrous dust explosion and fire.

Compare such an extension cord with the approved style shown in the engraving, with correct socket, good hand-hold and a hook on the guard for conveniently hanging the lamp while at work.



Portable Light. Extension Cord that Started a Bad Fire.



Correct Socket. Good Hand-hold and Convenient Hook on Approved Light Assembly.

Field Seeds

Marshall, Minn.—The Porter Seed Store opened here last month.

Waverly, Ia.—Paul Meeker opened a seed and fertilizer store here Mar. 21.

Adel, Ia.—The Midwest Seed Co. has opened a branch store here, with Elmer Jurgens in charge.

Irvine, Ky.—Chas. Dozier and Judge O. W. Witt have opened a store handling field and grass seeds.

Providence, R. I.—W. E. Barrett Co., seeds, has left its 88-year-old home on Canal Street for a new and better location.

Harlan, Ia.—A seed and feed store has been opened by Floyd Campbell, operator of a portable grinding mill, which he will continue to run.

Fort Wayne, Ind.—The Master Feed & Seed Co. has been incorporated by Henry D. Egly, Robert P. O'Brien, Harry Offutt and Edward T. Schele.

Pittsburgh, Pa.—Oscar M. Beckert, manager of Beckert's Seed Store, with which he has been associated for 25 years, died of heart failure on Mar. 20.

Des Moines, Ia.—Another store has been opened by the Des Moines Seed Co. to handle field and garden seeds and baby chicks. Ray Kendall is in charge.

Evansville, Wis.—Green & Co. recently sold 1,500 bus. of certified seed barley to the California Packing Corporation, Rochelle, Ill., to be used on its farms in Illinois.

Forest Grove, Ore.—A three-story warehouse and cleaning plant for Austrian winter peas and vetches is now under construction here for E. F. Burlingham & Sons.—F. K. H.

Portland, Ore.—The Chas. H. Lilly Co. has taken over the seed retail store of Rutledge & Co. Wholesale seed and fertilizer will be continued by the Chas. H. Lilly Co. at the old office.

San Francisco, Cal.—At the regular quarterly meeting of the California Seed Council, Mar. 10, John Knox, Stockton, was elected pres.; Dr. F. N. Briggs, Davis, vice-pres.; W. L. Goss, Sacramento, sec'y.

Seed Movement in March

Receipts and shipments of seeds at the various markets during March, compared with March, 1935, in bushels, except where otherwise noted, were as follows:

FLAXSEED				
	Receipts		Shipments	
	1936	1935	1936	1935
Chicago	78,000	13,000	19,000	48,000
Duluth	13,453	3,456	13,030	.....
Ft. William ...	7,296	4,061	38	1,200
Minneapolis ...	219,200	100,020	120,630	39,700
Superior .....	.....	.....	7,747	.....
KAFIR AND MILO				
Hutchinson ...	6,600	1,100	.....	.....
Ft. Worth	147,400	31,900	44,000	26,400
Kansas City ..	107,800	50,400	42,000	48,000
Wichita	23,400	3,900	18,200	1,300
CANE SEED				
Ft. Worth	13,200	1,100	.....	.....
Kansas City ..	40,600	11,200	7,200	7,800
Wichita	1,300	.....	1,300	.....
CLOVER				
Chicago, lbs....	1,426,000	717,000	460,000	393,000
Milwaukee, lbs.	280,675	44,810	1,254,911	1,145,790
TIMOTHY				
Chicago, lbs....	1,563,000	173,000	739,000	50,000
Milwaukee, lbs.	448,210	.....	622,478	231,810
SOYBEANS				
Chicago	664,000	165,000	342,000	63,000
Toledo	19,600	.....	.....	.....

Pittsburgh, Pa.—Damage to seed stocks and store fixtures of the I. W. Scott Co. in the floods that began Mar. 17 and made rivers and canals of the streets in downtown Pittsburgh, totaled more than \$10,000.

St. Paul, Minn.—Meetings to discuss seed barley and barley growing were held late in March at Mabel, Harmony, and Wykoff, Minn. The selection of plump, high quality seed and the use of cleaning machines was advocated.

Lexington, Ky.—Lexington Seed Co. made an assignment to W. L. Pickett on Mar. 10 to protect its creditors. Assets are estimated at \$1,200; liabilities at \$8,250. Unsecured creditors expect to receive a small dividend, when assets are liquidated.

Winchester, Ind., Apr. 2.—Sixty days ago it looked as tho the seed corn problem thruout the Indiana corn belt would be serious, but now old 1934 crop corn is popping up, so we personally are going to have all the good seed corn we need.—Goodrich Bros. Co.

Minneapolis, Minn.—There seems to be a good demand for seed flax thruout the Northwest, and seed companies are reporting the best sales they have had in several years. It looks very much as tho seed supplies will be plentiful and, as a whole, the quality and germination is excellent.—Archer-Daniels-Midland Co.

Ames, Ia.—The Iowa Experiment Station and the U. S. Department of Agriculture have released early Korean lespedeza (No. 19604) as an early maturing strain which is expected to thrive on acid soils of southern Iowa where clovers are not successful. Seed released this year is to be planted in rows and cultivated for further seed production.

Lafayette, Ind.—"Seasonal conditions this spring and summer will be more important in determining insect population this year than the winter's cold weather," declares Prof. J. J. Davis, of Purdue University's entomology department. Snow is a good insulator, and severe cold has little effect on hibernating insects. Insect control measures must be continued.

Minot, N. D.—Earl Zellmer, Hamberg, was elected pres. at the annual convention of the North Dakota Seed Grain Ass'n, succeeding O. W. Klindworth, Fessenden. New vice-presidents are: Howard I. Henry, Westhope; Harry Storman, Devils Lake, and A. G. Jacobson, Cartwright. Dr. E. G. DeMots, Minot, was elected treas.; Einar Madsen, Burlington, sec'y.

Urbana, Ill.—The Illinois Crop Improvement Ass'n and the agricultural department of the University of Illinois are co-operating to inspect, test and tag certified hybrid seed corn under seal. The certification system will be applied to first generation hybrids only. About 1,500 acres of commercial stocks of hybrid seed corn were grown in Illinois last year, producing enough seed to plant from 200,000 to 250,000 acres this season.

Sioux City, Ia.—The demand for Iowa seed corn has far exceeded the supply. The originators of this hybrid, the Sioux City Seed Co., report that a much larger crop will be planted in 1936, so that they will be better able to take care of the demands made for this seed during the next season. Also, next season will find the Sioux City Seed Co. with an Iowa Hybrid Seed Corn adapted for every section of the corn belt.

New York, N. Y.—Samuel Burnett, Robert M. Burnett and William J. Burnett have organized Burnett-Seedsman, Inc., to specialize in estate requirements for farm, grass, vegetable, and flower seeds, fertilizers, insecticides, and implements.

Winchester, Ind.—Field seed movement has been good and demand for Red Clover has been the best we have had for the last five years. We believe it is due to the fact that many farmers are going back to their old system of rotation.—Goodrich Bros. Co.

Spur, Tex.—Planting 36 varieties of grain sorghums on May 30, June 10, and July 21, the Texas Experiment Station here found the highest yields were made by hegari, Schrock, and Dwarf Yellow milo from the three planting dates, respectively. Among the highest yielding varieties have been Dwarf Yellow milo, 28.8 bus. of grain per acre; hegari, 26.1 bus.; and Spur feterita, 23 bus. Dwarf Yellow milo is the leading grain variety. Red top cane is best for bundle feed.

Oat Breeders for years have been searching for oat varieties that are truly rust resistant. A world-wide search for such varieties was finally successful in the discovery of resistant types in South America. These South American oats are of little value commercially, but hybridized with Nortex and other Texas varieties, they are producing segregates which are adapted to Texas conditions and are entirely free from rust. Hundreds of these rust resistant segregates are now being tested by the Texas Station and it is only a question of time until they will be available to Texas farmers.

Little Rock, Ark.—Altho the Arkansas seed law requires that all field seeds must be tested and tagged to show purity, presence of weed seeds, and germination before being offered for sale, the Arkansas Plant Board is allowing the following exceptions in the current season: Local grown cowpeas need be neither tested nor tagged. Seed corn, whether local or shipped in, need be tagged only to show the name of the state where grown, the percentage of germination, and the date of germination test. Local grown soy beans, mung beans and cane need be tagged only to show the germination percentage and the date of test.

Terrell, Tex.—The contention of the Terrell Milling Co. that the plaintiff had purchased 50 bus. of oats without indicating that they were to be used for seed, was supported in the jury decision in the district court of Kaufman County, when a farmer brought suit against the mill, pleading that he had purchased the oats for seed, that the oats contained a large quantity of Johnson grass seed, and that the weed had damaged his farm to the extent of \$1,600. The jury concluded that only 20 acres of ground were planted with the oats, that the damage to the ground did not exceed \$5 per acre, and that the mill was in no way responsible.

Directory

Grass and Field Seed Dealers

CRAWFORDSVILLE, IND.

Crabbs, Reynolds, Taylor Co., clover, timothy.

GREEN SPRINGS, OHIO

The O & M Seed Co., seed merchants.

PAULDING, O.

Stoller's Seed House, wholesale field seeds.

ST. LOUIS, MO.

Mangelsdorf & Bro., Ed. F., wholesale field seeds.

SIoux CITY, IOWA

Sioux City Seed Co., seed merchants.

Postville, Ia.—The vigorous business-getting methods of the Postville Elevator increased its volume of seed sales in the early weeks of March to \$1,500 a day, in addition to mail orders amounting to \$2,000 per day.

Seattle, Wash.—It seems worth while to quote the actual wording of S. T. M. 45, now that seeds are moving out in quantity. Seeds sold for commercial production are exempt from retail sales tax. The Tax Commission says: "Generally, dealers may presume that seed . . . sold in amounts of more than eight ounces to persons producing agricultural commodities is for use in commercial production. However, this presumption does not relieve the dealer of responsibility in connection with determining the purpose for which purchases are made. Dealers should make inquiry of purchasers with whose activities they are not familiar; if, in any case, the dealer knows that seeds sold are not for use in commercial production the 2% retail sales tax must be collected. Thus, sales of seeds in any quantity, however large, are definitely taxable if the seeds are to be used for lawns, home gardens, or any other use than commercial production."—Floyd Oles, manager, Pacific Northwest Feed Ass'n.

Seed Council for Nebraska Discussed

The Nebraska Seed Dealers Ass'n met in Lincoln on March 10 for discussion of current seed handling and selling problems. Pres. B. F. Sheehan presided.

L. M. Gates, state seed inspector, presented and advocated a new seed label.

Paul Stewart made recommendations covering Atlas sorgho, hegari, and other forage crops grown in Nebraska.

Ten minute talks on seed planting expectations were made by Mell Kollman, Sioux City Seed Co., Sioux City, Ia.; J. A. Yager, Fremont; Robert Pease, Beatrice; Charles Campbell, Seward; Robert Noll, Ord, and R. C. Graham, Superior.

L. H. Hare, Hastings; Earl Conrad, Fremont, and Paul Burgeson, Holdrege, discussed interstate and intrastate peddling of untested, and undependable seeds.

A long discussion centered about the formation of a state seed council. At its close J. C. Robinson was appointed chairman of a com'te to make further studies of the proposal.

Studying Seed Testing at Purdue University

A 3-weeks' intensive course in official methods of seed testing at Purdue University, Lafayette, Ind., offers a splendid opportunity to seeds men, vocational teachers and others to learn the official methods of seed testing, both for germination and purity.

The course will be repeated this year from June 29 to July 18, as a part of the regular summer session.

The laboratory work of the course will be supplemented with lectures and field trips which will allow opportunity for first hand study of noxious and troublesome weeds, and students will collect, press, and mount their own specimens under pyralin. The course will also include studies of some of the common poisonous plants.

Due to limited facilities, the enrollment for the special course will be limited to twelve students, and those interested are advised to send in their applications immediately to either Prof. J. H. Lefforge, agronomy department, or Dr. H. R. Kraybill, State Seed Commissioner, Purdue University.

Treat Seed Oats

By C. T. GREGORY of Purdue

Seed oats should be treated at least once every three years to hold the smut disease in check. There are now available either wet or dry treatments which are equally effective in killing smut and both are very cheap.

The old standard formaldehyde, so well known to most farmers, is still as effective as any method. It consists in diluting one pint of formaldehyde in five gallons of water and then applying this mixture to forty or fifty bushels of seed oats with a sprinkling can. The solution is slowly sprinkled over the oats as they are being shoveled from one pile to another. After the treatment, the oats are either covered for at least five hours and then sacked, or may be sacked immediately. Plant when ready.

The newer treatment is with one of the organic mercury compounds. This material may be obtained at drug stores, seed stores, and possibly other places, such as at elevators. Use this dust at the rate of one-half ounce per bushel of seed. Mix it with the oats in some sort of a closed revolving container for about two minutes. Do not try to mix the seed and dust with a shovel, because this method is not effective. While working with the dust, keep the nose and mouth covered with a damp cloth, or a damp sponge, to prevent inhaling the dust. It will cause considerable discomfort and may possibly be more injurious.

After the oats are treated, sack them immediately and plant when ready. Do not feed the treated oats, since the dust is poisonous if taken internally.

Oregon Organizes Seed Council

A group of 50 Oregon seed dealers and growers met at the Oregon State College, Corvallis, last month and organized the Oregon State Seed Council, with Alec Cellars, McMinnville, temporary pres., and E. R. Jackman, extension agronomist, Corvallis, sec'y. A com'te on organization and policy was appointed to complete the organization by Apr. 1.

The Council proposes to co-ordinate all agencies concerned in the expansion of Oregon's seed industry, promote trade, and protect the industry within the state. Of immediate concern is the effect of the Canadian reciprocal trade agreement on seed sales.

Seed Dealers Will See Texas Centennial

Seedsman who attend the conventions of the Southern Seedsman's Ass'n, June 25-27, and the American Seed Trade Ass'n, June 29-July 1, at Dallas, Tex., will have opportunity to visit the elaborate Texas Centennial Exposition, which opens at Dallas on June 6.

A featured exhibit in the agricultural division of the \$25,000,000 project will be a display of the seeds from over 250 kinds of varieties of Texas crops, built in the form of a revolving wheel, 10 ft. in diameter and 4 ft. thick. As the wheel turns, it brings into view, glass tubes containing the seeds. Each tube is spot-lighted in turn, and placarded to show the name and variety of the seed and a description of its purposes in Texas. Field Inspector R. V. Miller, of the State Seed and Plant Board, worked two months collecting seeds and data.

"The agricultural end of the Exposition will stress the importance of pure seed," says J. A. Moore, director of its agricultural exhibits, and a member of the State Seed and Plant Board. "As a farmer and seed grower, I know that pure seed is as valuable in growing crops as is pure bred stock in raising livestock."

Many private exhibitors will feature displays at the Exposition, which celebrates 100 years of development since Texas won her freedom from Mexico in 1836. Four centuries of romantic history will be reflected in the exhibits and the pageants. Many sports events are scheduled, including football games, rodeos, boxing bouts, and an open golf tournament. Dallas expects 10,000,000 visitors during the 176 days that the Texas Empire is on parade.

Argentina shipped 575,000 bus. of corn to the United States during the week ending Mar. 28.

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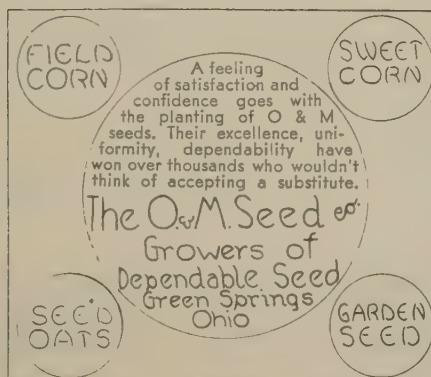
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Interstate Trucking of Misbranded Seed Violates Law

Only common carriers are exempt from the provision of the Federal Seed Act that forbids interstate transportation of misbranded seed. Selling of misbranded seed in interstate commerce also violates the law. A trucker peddling misbranded seed, is punishable under either provision, advises the Division of Seed Investigations of the Department of Agriculture.

One investigation by department officials developed that a truck owner was buying screenings from a seed house and selling them in another state as good seed. He was forced to misbrand the seed to get buyers.

For their own protection, buyers of seed from truckers must keep written records of the transaction, including the name of the trucker, and his license number. Complaint to state or federal officials of violations of the Federal Seed Act must be backed by adequate information to win the convictions that are necessary to discourage itinerant truckers.

Grass Seed Prospects

BY CHAS. A. HEATH

Indications show condition of meadows and pastures much below that of last year. A shortage in hay crop and clover harvest will appear in New York, northern Pennsylvania, all of Michigan, Ohio, Indiana, southern Illinois, practically all of Kentucky, southern half of Missouri and eastern Iowa, and a very low percentage of range conditions from Shreveport, La., and San Antonio, Tex., thru all of the southwest, and northward covering Oklahoma, Texas, western half of Nebraska, Colorado, Wyoming and Montana.

It is fair to conclude a very much shorter crop than last year in practically all of the timothy belt, on account of unfavorable moisture conditions. What effect, if any, the low price will have upon the farmers' purpose to save seed this year is not discussed. Timothy will be particularly short in Ohio, Indiana, Illinois, eastern Missouri, southeastern Iowa, and a light crop in South Dakota, North Dakota and north half of Minnesota. There cannot be recovery with spring rains in the timothy crop that will be experienced in the redbot fields.

Bluegrass pastures will produce less than last year in Kentucky, Illinois, southwestern Iowa, eastern Nebraska, and moderately below last year in Missouri.

Redtop areas in Illinois are less affected than other grasses by fall moisture conditions, but meadows are below normal at present.

Reed Canary Grass Seed a Good Value

By A. C. ARNY of University Farm, St. Paul

With reed canary grass seed selling for 30 cents or less per pound, compared with 75 cents or more per pound previously, farmers have an unusually good opportunity this year to begin growing this remarkable hay and pasture crop.

When grown on moist rich peat or muck soils, this grass yields from 3 to 4 tons of hay per acre. Dairy cattle eat it as readily as timothy. It is also excellent for pasture, producing heavily all season long, and bearing heavy animals without hummocking. Unlike timothy and other tame grasses, it can stand considerable flooding without smothering.

Altho it is best to plow the land, if possible, in preparation for the crop, good stands have been obtained on land merely disked. Disking of course is the only method of preparation that can be undertaken on land so wet as to bear horses only when partially frozen. Such places should be disked as soon as the surface thaws to a depth of 3 or 4 inches. The crop may be seeded either in the spring or fall, as conditions permit.

Before reed canary is planted, the land should be carefully studied as to fertilizer needs and the requisite materials applied. Peats very frequently require phosphate and potash, available either in barnyard manure or commercial materials.

Four pounds of seed per acre will make a fairly good stand, which will "thicken" considerably after the roots have become established. With the seed as cheap as it is, however, the seeding of 6 to 8 pounds per acre is justified.

Improved Corn Varieties Developed in Texas

The plant improvement program of the Texas Agricultural Experiment Station is quite extensive, embracing all the major field crops as well as the horticultural crops. One or more plant breeders of the Station are now assigned to each definite project in this field. The effort is to perfect these crops for Texas conditions. The breeding program is no longer confined to straight selection, but now includes inbreeding, hybridization, and backcrossing followed by rigid selection that are resulting in new strains and varieties of definite superiority.

By these methods five of the best varieties of field corn for Texas are being converted to yellow, thus retaining their higher yielding qualities over the older yellow varieties and yet giving them a high vitamin A content. The technique in this work involved "breeding in" yellow color and "breeding out" white caps. Yellow Surcropper, Yellow Tuxpan, and Golden Thomas have passed thru the required processes and seed is being distributed to farmers for the first time this spring. Golden June developed at Chillicothe will be ready for distribution in 1937. Yellow Hastings Prolific, called Golden Prolific, developed at Nacogdoches Station, should be ready in 1938.

An intensive inbreeding campaign for several years has resulted in a number of pure strains of corn suitable for crossing with current varieties to give greatly increased yields by what is known as hybrid vigor. These pure strains, however, show different results in different seasons and a number of years will be required to ascertain which are best. In the breeding work, control of both the male and female parent is necessary. This is accomplished by self-pollination, a form of inbreeding three times as concentrated as brother and sister matings in livestock. The resulting strains are far more uniform than any grown today.

Smut Control Needed in Western Wheat

Heavy receipts of smutty wheat in major Pacific Coast markets indicate need for stringent smut control measures. Reports on February inspections show:

Portland received 518 cars, of which 109 graded smutty; Pendleton, 204 cars, 69 smutty; Seattle, 224 cars, 44 smutty; Tacoma, 416 cars, 64 smutty; Spokane, 523 cars, 95 smutty; Pasco, 81 cars, 35 smutty; Ogden, 123 cars, 48 smutty; Salt Lake City, 61 cars, 34 smutty.

Dealers without wheat washing machines are sure to suffer heavy discounts.

Weed Seeds in Oats

The Arkansas Plant Board reports two cases of misbranding of seeds as follows:

A shipment of 16 bags of Burt oats were found at Piggott Mar. 6, bearing analysis tags of the Malden Grain Co., Malden, Mo. The tags read "Noxious Weed Seeds—None," whereas the Board's analysis of sample showed dock seed present at the rate of 600 dock per pound of oats.

A shipment of 20 bags of red seed oats found at Nashville, Ark., Mar. 9, bearing the analysis tags of Darragh Co., Little Rock, bore the statement, "Noxious Weed Seed—None," whereas the Board's analysis of the sample showed cheat and other noxious weed seed to be present.

Vigorous Seed Campaign in South Dakota

At Aberdeen, S. D., the Brown County Crop Improvement Ass'n and County Agent Ben Schaub, with the aid of several civic organizations, are vigorously campaigning among the farmers for planting of the best available seed grain. Letters explaining the seed situation created by the rust epidemic of 1935 and calling attention to the increased yields that follow planting of heavy seed, have been mailed to every Brown County farmer.

Approximately 2,500 seed testers, made from old newspapers, have been distributed with instructions for use, and cellophane packages containing 100 kernels of plump wheat went with them, so that the growers could compare the vigorous seedlings they produced with the seedlings produced by their own seed wheat.

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Wheat Smuts

By Professor J. E. Howitt,
Ontario Agricultural College

There are two kinds of wheat smuts, namely, stinking smut or bunt and loose smut of wheat. It is very important to distinguish them as the methods of prevention are so radically different.

Stinking Smut or Bunt of Wheat.—This smut has been reported as prevalent in 22 counties of the province. This is a serious disease because not only does it destroy the grain attacked but also imparts a disagreeable odor and flavor to the sound grain in the same bin or bag.

The symptoms of this smut are not readily noticeable until the wheat is ripening, when the affected ears are usually noticed to stand up stiff and erect, with the chaff somewhat bleached and more or less distended. The grains only are directly affected. They are short, plump, light in weight, somewhat discolored and filled with a brownish black somewhat oily powder which has an odor like decaying fish.

The important points in the life histories of the fungi which cause this smut are briefly as follows:

1. The spores are scattered during the threshing and handling of the grain.
2. The fungi are carried over from season to season as the spores adhering to the surface of the seed grain.
3. Infection takes place thru the first leaf sheath of the young seedling plant and this is the only time that it can take place.

The period of susceptibility of the young seedling is normally about eight or ten days from the time of sowing. In some seasons, however, on account of climatic conditions it may be much longer.

Varieties of wheat differ in regard to their resistance to bunt. No varieties, however, are known that are so resistant that seed treatment is not required.

Methods of Prevention.—

1. Copper carbonate dust treatment.
2. Sprinkling with formalin of the strength of 1 pint to 40 gallons of water.
3. The ethyl mercuric phosphate dust treatment. (Improved Ceresan.)

Loose Smut of Wheat.—This smut is more common and more injurious in Ontario than is generally recognized. It is usually only seen in the field for a short while at flowering time and is therefore overlooked by many men. In inspections made in Wellington County it has not been uncommon to find fields with 10% of the wheat ears destroyed by this smut. We have already noted that it has been reported as common in 25 counties of the Province and that 13 counties report that it is becoming more serious each year.

Symptoms.—Loose smut is seen in the field just as soon as the wheat begins to ear out. It converts both the grains and the chaff into a black smut mass which is usually soon blown away by the wind leaving only the naked central axis of the ear.

The important points in the life history of this smut are as follows:

1. The spores are scattered by the wind at flowering time.
2. Infection takes place thru the stigma of the flower.
3. The fungus is carried over from season to season as the dormant fungus threads (mycelium in the seed).

Infected grains are perfectly sound and there is no way of telling them from grains that are not infected except by skilful microscopic examination.

Prevention.—This smut of wheat cannot be prevented by any of the seed disinfectants. There is a hot water seed treatment which will prevent it, but it is so complicated that few farmers would care to attempt it. In Sweden and some of the states to the south

of us, seed treating plants have been established to get over the difficulty of individual seed treatment. We may have to resort to such seed treating plants in Ontario if loose smut continues to increase. At the present time the easiest way of avoiding this smut is to secure seed from a district where this smut is not present. Such seed will produce a crop free from loose smut.

Early Lespedeza

An early variety of Korean lespedeza has been tested by the U. S. Department of Agriculture, producing fair to good seed crops at Holgate, O., and Kalamazoo, Mich., and it produced a little seed as far north as Madison, Wis. The original development was at the Department's Arlington farm in Virginia.

"Only actual farm experience can determine the value of this early Korean," says Dr. A. J. Pieters, lespedeza specialist. "It should not be planted south of southern Iowa, or north of southern Wisconsin. Since seed of the early variety cannot be distinguished from standard Korean, buyers should demand evidence of purity."

Sorghum Seed Germinating Poorly

Sorghum seed from the 1935 Iowa crop is germinating rather poorly, according to recent tests made in the seed laboratory at Iowa State College, according to Director R. H. Porter.

Samples from 16 counties, representing all but the extreme eastern sections of the state, have been tested, and results show that the germination has varied between 4 and 97 per cent, with an average of 68 per cent. Of the samples tested, 68 per cent were strong, 3 per cent weak and 29 per cent dead.

This low germination is probably due to the short growing season of 1935. The lateness of the planting date combined with a high moisture content at the time of the first killing frost accounts for the unsatisfactory germination.

Some Good Minnesota Corn Hybrids

By R. F. CRIM of University Farm, St. Paul

Hybrid varieties of corn developed by the Minnesota Experiment Station yield more, mature earlier and stand up better in the field than the majority of open-pollinated varieties grown by Minnesota farmers.

This statement is based on the results of hundreds of demonstrations conducted under actual farm conditions in corn growing counties of the state.

For instance, our records for 1933-35 showed that Minihybrid 301, a three-way cross between Minnesota 13 and Reid's Yellow Dent, outyielded farm varieties in southeastern Minnesota by 22.4 per cent; in south central Minnesota by 18.4 per cent; and in southwestern Minnesota by 10 per cent.

Similarly, in central Minnesota, two double-crosses of Minnesota 13 and Rustler White Dent outyielded farm varieties during a recent five-year period by an average of more than 12 per cent.

As a whole, the hybrids yielded more, matured earlier and stood up better in the field than the average open-pollinated farm varieties. In the few cases in which the hybrids yielded less than the farm varieties, the difference was due, for the most part, to poor stands.

The Government, thru its Commodity Credit Corporation, on Apr. 4 announced a plan to turn back to farmers at 11½ cents the 4,390,000 bales of cotton acquired from the cotton growers on the 12-cent loan. In addition the people will stand the loss of 1¼ cents per pound warehousing charges.

A Collector for Buffalo Grass Seed

The dust filled air of the wind-swept Great Plains country has awakened interest in Buffalo grass, which once sodded the plains and provided nourishment for huge herds of cattle. Buffalo grass has demonstrated remarkable resistance to sun and wind, and ability to develop sod quickly under favorable conditions. But its seed is difficult to harvest and low in germination.

Kansas experimenters at the Hays experiment station developed a suction machine to collect Buffalo grass seed, which has successfully retrieved as high as 95 per cent of the seed in a given area, the averaging about 64%.

The collecting nozzle in the most successful models is about 6 ft. long and 4 inches wide. A light chain, dragging ahead of the nozzle, loosens the seed from the stems or dirt. The grass should be clipped closely before the seed is collected, late in summer or early fall.



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Feedstuffs

Portland, Ore.—The Southern District of the Pacific Northwest Feed Ass'n held a meeting in this city on Apr. 2.

Washington, D. C.—The current monthly report of the Food & Drug Administration shows one case of a "pure cane powdered molasses" for use in stock feeds, which was found to contain about 15% ground cocoa shells.

College Station, Tex.—At a special meeting here of the Texas Feed Manufacturers Ass'n, addresses were made by Gaylord J. Stone, Ft. Worth, pres.; C. P. Shearn, Jr., Houston; W. P. Bomar and J. B. Simpson; and experiment station staff members Dr. G. S. Fraps, and Profs. F. D. Fuller, Fred Hale, R. M. Sherwood, O. C. Copeland and A. B. Connor.

Washington, D. C.—The hog-corn price ratio in February (193) was the highest in two years. Altho there were 9% more hogs on farms at the beginning of this year than a year earlier, further expansion may be expected in view of the favorable hog-corn price ratio. Increased hog production is also expected in Canada.—Buro of Agricultural Economics.

Washington, D. C.—Prospective supplies of feedstuffs for the remainder of the season will be below average. Supplies of wheat feeds will probably be about 10% below the 1928-33 average. Supplies of cottonseed cake and meal for the remainder of the season may be 25% below average, but not much different from a year ago. Altho linseed meal production will also be below average, it will be larger than last season. Larger quantities of soybean meal will be available.—Buro of Agricultural Economics.

Ohio Shows Increased Feed Tonnage

The Ohio Agricultural Experiment station recently completed its annual survey of commercial feed sales in the state. John L. Smith, of the department of rural economics, Ohio State University, Columbus, reports a substantial increase in the total tonnage of feeds sold, the greatest increase occurring in the sales of mixed hog feeds. Sales of mixed feeds showed a better increase than sales of unmixed feeds.

Reports from the same 225 firms that sold 89% of the total estimated tonnage in both 1934 and 1935 constitute the source of the following table:

	Estimated 1934	Tons 1935	Per Cent Increase
Mixed Feeds			
Dairy Feeds	37,346	38,843	4.0%
Poultry Feeds	78,326	92,016	17.5%
Hog Feeds	7,062	13,969	97.8%
Other Mixed Feeds....	18,747	24,689	31.7%
Total Mixed Feeds..	141,481	169,517	19.8%
Unmixed Feeds			
Soybean Meal	8,115	15,749	94.1%
Cottonseed Meal	6,981	6,621	*5.2%
Linseed Oil Meal.....	13,611	18,050	32.6%
Bran	48,635	49,147	1.1%
Middlings	43,830	48,330	10.3%
Alfalfa Meal	2,283	3,142	37.6%
Gluten Feeds	24,259	11,648	*51.9%
Hominy	31,452	40,641	29.2%
Tankage	11,143	10,444	*6.3%
Meat Scraps	20,206	21,377	5.8%
Milk Products	2,810	2,950	5.0%
All Other Feeds.....	16,633	13,121	*21.1%
Total Unmixed Feeds.	229,958	241,220	4.9%
Total (All Feeds)....	371,439	410,737	10.6%

*Decrease.

Oregon Feed Dealers Will Meet in May

The annual convention of the Oregon Feed Dealers Ass'n will be held May 8 at the Multnomah Hotel, Portland, Ore.

On the roster of speakers is C. C. Chapman, tax and finance expert, who will discuss "Social Security"; Charles Wright, chief of the grain inspection service, who will demonstrate grain grading; Prof. J. R. Haag, of Oregon State College, on poultry feeding; Harry A. Schoth, on seeds.

Registration charges have been set at \$1.50, which includes the evening banquet. Sessions will open at 2 p. m. and last until the close of the grain grading demonstration.

Uniform Feed Law Favored in Michigan

Over 30 delegates attended the annual meeting of the Michigan Feed Manufacturers Ass'n, held at Lansing, Mar. 11. Fred Zinn, Battle Creek, was re-elected pres.; John McAlister, sec'y.

R. M. Field, Chicago, explained the merchandising plan and principles that are supported by the American Feed Manufacturers Ass'n, of which he is executive vice-pres. The Michigan Ass'n adopted a resolution promising support.

A new feed bill is expected to be introduced at next winter's session of the Michigan Legislature. Delegates voted that the ass'n should work for a uniform feed law, as jointly prepared by the American Feed Manufacturers Ass'n, and the Ass'n of American Feed Control Officials.

Dr. Card and Dr. Hoffman of the Michigan Agricultural College, addressed the delegates at the evening dinner.

Carotene Converted Into Vitamin A

The health and productiveness of cattle are very dependent upon the quantity of vitamin A which they receive in their rations, that these animals usually receive most of their vitamin A in the roughage, and that their health and productiveness are, therefore, commonly dependent on the kind and quality of their roughage. Recent research in the Buro of Dairy Industry and in other scientific laboratories now throws more light on the chemistry of vitamin A and its distribution in various farm feeds, and on certain important practical considerations regarding the relation between its chemistry and color and its appearance in milk and butter.

Vitamin A appears in the tissues of animals as a nearly colorless highly complex alcoholic compound associated with the fats. Plant tissues, on the other hand, contain several closely related yellow pigments called carotenes. These pigments are hydrocarbons, and are easily converted by animals into colorless vitamin A when consumed as a part of the food. So far, colorless vitamin A has not been found as a natural constituent of plant tissues, and a number of investigations, particularly a recent careful investigation in the Buro of Dairy Industry on alfalfa hay, have indicated that this compound does not occur in plants, and that the vitamin A activity of plant feeds is wholly accounted for by their carotene content.

The vitamin A content of feeds has been determined in the past in time-consuming experi-

ments involving the rate of growth of rats. Recently, however, fairly rapid and accurate direct chemical methods for the determination of carotene in plant tissues have been developed. As the carotene content of plant tissues is a measure of their vitamin A activity, this activity can now be more quickly and accurately determined in plant tissues by carotene determinations than by the older form of feeding experiments with rats.—U. S. D. A.

Hay Movement in March

Receipts and shipments of hay at the various markets during March, compared with March, 1935, in tons, were:

	Receipts		Shipments	
	1936	1935	1936	1935
Baltimore	11	11	75	132
Boston	726	924	...	...
Chicago	2,508	5,168	259	2,652
Fort Worth	56	1,023	...	...
Kansas City	6,576	14,352	3,312	8,172
Minneapolis	332	10,139	24	1,326
Seattle	121	231

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Blood, dried	Meat meal, scrap
Bone meal	Mill feeds
Brewer's dried grains	Minerals
Buttermilk, dried,	Mineral mixtures
semi-solid	Molasses
Calcium carbonate,	Oyster shell, crushed
phosphate	Peanut meal
Cocao nut oil meal	Peat moss
Cod liver oil	Phosphates, rock
Charcoal	Potassium, chlorid
Commercial feeds	Iodine
Corn germ meal	Poultry grits
Cottonseed meal,	Salt
cake	Sardine oil
Feed mixers	Screenings
Feed concentrates	Sesame meal
Feeders for mills	Skim milk, dried
Fish meal	Soybean, meal
Formulas	Tankage
Gluten, feed, meal	Vegetable oil
Hammer mills	Yeast for feeding
Iodine	

Information Bureau

GRAIN & FEED JOURNALS

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Feed Prices

The following table shows the closing bid price each week for July futures of standard bran and gray shorts, spot cottonseed meal, soybean oil meal and alfalfa meal in dollars per ton, and No. 2 yellow corn and No. 2 yellow soybeans in cents per bushel.

Minneapolis Spot		Kansas City	
Bran	Midds	Bran	Shorts
Mar. 7.....	16.00	16.25	13.25
Mar. 14.....	16.00	16.00	13.50
Mar. 21.....	16.00	16.25	13.40
Mar. 28.....	15.25	15.50	13.10
Apr. 4.....	15.50	15.75	13.30
St. Louis		Chicago, Soy	
Bran	Shorts	Beans	Meal
Mar. 7.....	14.75	84	23.40
Mar. 14.....	15.35	82½	22.40
Mar. 21.....	15.00	80½	21.90
Mar. 28.....	14.60	79½	21.90
Apr. 4.....	14.50	79½	20.50
Cottonseed Meal		Denver	
Ft. Worth	Memphis	Alfalfa	Corn
Mar. 7.....	24.00	20.50	62½
Mar. 14.....	24.50	20.00	62½
Mar. 21.....	24.50	20.00	60
Mar. 28.....	24.50	19.75	61½
Apr. 4.....	24.50	21.00	62

and cottonseed meal were changed somewhat. However, the two rations were kept equal in protein, and the same changes were made in both rations. The most notable change was the replacement of one-half of the corn by wheat.

The check lot was fed 400 lbs. corn and cob meal; 400 oats, 100 wheat bran; 100 linseed meal; 100 cottonseed meal, and 10 lbs. salt. The test lot was fed the identical ration except that the cottonseed meal was cut from 100 to 20 lbs., and 50 lbs. fish meal and 30 lbs. kelp meal substituted.

The results can be very briefly summarized by saying that there was no significant difference in production on the two rations. Further weight is given to this statement by the fact that the 14 cows produced practically the same on both rations. The total feed consumption and the amounts of feed required to produce 100 pounds of 4 per cent milk (fat-corrected) were nearly equal on both rations. The butterfat test was practically the same on both rations.

More Feed Available for Livestock

More feed grains are available this year than last for the world's livestock, principally because of the return to nearly average yields in the United States, says the Bureau of Agricultural Economics in its March report on feed prospects.

Another very large Argentine corn crop, will be available after April 1, altho official estimates put this year's crop at 71,000,000 bus. below last year's record crop of 451,000,000 bus. This year's crop, however, is 75,000,000 bus. above the average for the 5 years ended 1933-34.

Crop prospects are favorable also in the Union of South Africa, but the export outlook for Danubian feed grains, especially for corn, is reported "not favorable."

European feed requirements are expected to be larger this year than in the last two years, as a result of some increase in hog numbers.

A Combination for the Dairy Ration

By C. F. MONROE, M. A. BACHTELL, and C. C. HAYDEN

Because fish meal and kelp are the chief ingredients of Manamar, this experiment was planned as a check for those in which Manamar had been fed. However, since this work was started, several instances have come to our attention of dairymen who are feeding this very combination. At the present time, dried kelp, as well as fish meal, may be purchased on the market.

The trial herein described was conducted on the Trumbull County Experiment Farm with a herd of Holstein cows. The herd was divided as evenly as possible into two groups. To one group the usual grain ration was fed, and to the other the same mixture was fed with part of the cottonseed meal replaced by fish meal (white fish meal was used in this experiment) and kelp—the latter feeds comprising 5 per cent and 3 per cent, respectively, of the mixture. These rations were fed continuously for approximately 3 years. At the end of this time, the cows in the two groups were changed to the opposite ration at their next freshening. During the course of the trial the ingredients of these mixtures other than fish meal, kelp,

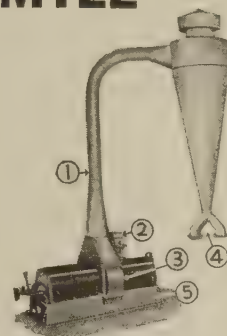
Feed Imports and Exports

Imports and exports of feedstuffs during January and during the 6 months ending December, 1935, compared with January, 1935, and the like 6 months of 1934, as reported by the Bureau of Foreign and Domestic Commerce, were as follows, in tons of 2,000 lbs.:

	IMPORTS		6 months ending Dec.	
	1936	1935	1935	1934
Hay	409	9,017	1,343	15,080
Coconut cake, meal...	3,526	4,268	29,592	24,458
Soybean cake, meal...	951	7,154	5,946	21,755
Cottonseed cake, meal	157	7,021	1,498	22,204
Linseed cake, meal...	991	1,181	4,125	5,260
All other cake, meal...	356	1,137	688	662
Wheat feeds	16,897	24,381	175,310	156,166
Tankage	3,355	1,270	24,305	8,980
Fish scrap, meal.....	6,226	6,714	8,382	23,862
EXPORTS				
Hay	202	240	1,030	1,018
Cottonseed cake	3	3	3,691	589
Linseed cake	19,072	15,931	118,917	79,688
Other oil cake	2,357	....	3,512	1,559
Cottonseed meal	189	90	3,031	1,402
Linseed meal	622	469	8,191	5,445
Other oil meal	1,344	209	18,624	507
Fish meal	1,200	4,107	10,656	13,722
Mixed dairy feeds...	115	290	1,281	934
Mixed poultry feeds...	120	161	682	1,578
Other mixed feeds...	85	169	1,117	1,303
Other feed, bran...	903	618	4,934	8,962
Kafir, milo, bus.	1,072	1,502	1,144
Oyster shell	5,493	3,080	23,451	31,740

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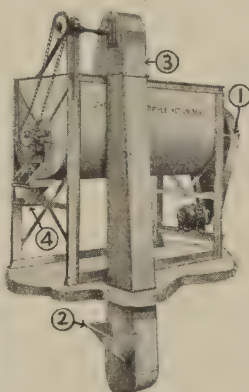
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Poultry Feeds and Feeding

The discovery of a method to make all potential rooster chicks hatch as hens was announced Mar. 28 by Dr. Benjamin Willier, professor of zoology at the University of Rochester.

A poultry feeder disgusted by the frequent disturbance of his flocks by midnight visitors, placed a notice in his local newspaper, to-wit: "PERSONS visiting my poultry houses at night will be found there the following morning."

Washington, D. C.—Poultry breeders and hatcherymen who participate in the National Poultry Improvement Plan, administered by Poultry Coordinator Berley Winton and P. B. Zumbro, and follow prescribed methods of production, may advertise and sell their breeding stock, hatching eggs and baby chicks as "U. S. Approved," "U. S. Verified," "U. S. Certified," and "U. S. Record of Performance." Hatcherymen accepting the voluntary plan must keep their hatcheries sanitary, and must keep records open to official inspection.

Digestibility of Argentine Corn Not Improved by Grinding

Using Rhode Island Red cocks that had been surgically altered so that the urine and feces would be voided separately, the U. S. Bureau of Animal Industry conducted experiments to determine whether grinding improved the digestibility of Argentine flint corn, reports J. C. Fritz.

Whole, cracked, and finely ground corn were compared in the experiment, and the coefficients of apparent digestibility were determined for total dry matter, organic matter, crude and digestible protein, ash, ether extract, crude fiber, and nitrogen-free extract.

Coarse or fine grinding improved the digestibility of the organic matter, ash, and ether extract only, the improvement in the digestibility of the organic matter being caused by the ether extract. Improvement in general digestibility was insignificant. Argentine flint corn digested as well as domestic dent corn.

Slipped Tendons Prevented by Wheat Gray Shorts

Chicks raised in battery brooders require different rations from those generally used for yard raised chicks. Slipped tendons are a common ailment in the battery fed birds, often rendering them unfit for sale. In this failing the tendons of the large muscles of the leg slip over the hock joint, preventing the muscles from controlling the feet, forcing the bird to hobble around on its hocks.

R. M. Sherwood, poultry husbandry department of the Texas Agricultural Experiment Station, experimenting with rice products, wheat products, cottonseed products and oat products to correct the dietary deficiency that was causing slipped tendons, found that liberal feeding of wheat gray shorts (20% to 30% of the ration) gave emphatic corrective results.

Further experiments developed another differentiation. Wheat gray shorts from hard wheat produced only one-third as many slipped tendons as shorts from soft wheat, and increased the weight of the birds by 10%. But the gray shorts from soft wheat produced slightly cheaper gains.

Rations without shorts developed 13 times as many slipped tendons in battery fed birds as rations containing 20% hard wheat gray shorts. Increase of the proportion of shorts to 30% gave a further slight reduction in

slipped tendons. Rations containing 20% shorts also showed a 25% gain in weight of the chicks over the no-shorts ration.

High Lights on California Meeting

Many interesting com'ite reports will be submitted at the 12th annual convention of the California Hay, Grain & Feed Dealers Ass'n to be held Apr. 23, 24 and 25 at the Biltmore Hotel, Los Angeles, by the following com'ite chairmen: E. R. Warren, Legislative; Dolph B. Hill, Mixed Feed; E. J. Forman, Transportation; Dave Macauley, Hay Marketing; J. C. Loomis, California Seed Council; C. E. Patterson, Alfalfa Meal; R. F. Liston, Arbitration; Frank Viault, Crop Report; Paul X. Smith, Membership.

Thursday afternoon, April 23, feed regulations will be the topic with L. M. Jeffers, enforcement officer, who will also report on enforcement during Friday afternoon.

Thursday evening special meetings for feed mixers and retailers will consider permanent regulations, and special conferences will be held between hay dealers and C. J. Carey, market enforcement official, who will address the convention on the Saturday morning program, April 25.

Retail dealers in Southern California have called a special meeting for nine o'clock Friday morning before the main convention opens. Their objective is to act collectively against the practices by certain wholesalers of selling dealers and consumers on the same basis.

The annual address for the California Ass'n will be given by R. J. Smith, President, San Francisco. State Director of Agriculture, A. A. Brock, together with other departmental chiefs and Dr. Lewis W. Taylor, University of California Poultry Expert, will all appear on Friday morning's schedule.

A special Biltmore luncheon will take place during the noon recess with possibly some specialty features. Outstanding speakers on the afternoon program for Friday will include Welles Ritchie for the Farm Credit Administration; Buron Fitts, former lieutenant governor and now district attorney for Los Angeles County. Mr. Fitts, whose office is cooperating in enforcement of civil laws governing competition, will discuss the Unfair Practices Act, which prohibits resale of goods below cost, and also the Fair Trade Act permitting California manufacturers to establish minimum resale prices on their proprietary brands.

A well known official of the National Federation of Feed Ass'ns, Floyd Oles, of Seattle, will tell the gang the why of feed organizations.

A special presentation service in which meritorious service emblems will be given to ten past presidents is especially interesting on the Friday afternoon program. Pres. Dick Smith will handle this, which starts an annual program of recognition to the men who direct Ass'n progress.

The annual banquet Friday evening in the

Feed Movement in March

Receipts and shipments of feedstuffs at the various markets during March, compared with March, 1935, in tons were:

	Receipts		Shipments	
	1936	1935	1936	1935
*Baltimore	2,734	3,044	8,946	9,498
*Boston	744	1,043	25	.....
*Chicago	9,799	7,789	29,020	23,062
†Kansas City	3,700	2,525	23,175	22,525
*Milwaukee	765	800	9,370	4,825
*Minneapolis	2,442	1,247	38,612	28,503

*Millfeed. †Bran and shorts.

Biltmore Bowl is open this year to the dealers and their wives.

Northwestern Feed Men Support Trade Practices

At a recent meeting in Buffalo, N. Y., of the Northeastern Ass'n of Feed Manufacturers, Geo. E. Todd, Buffalo, was elected pres. Other officers are: J. A. Trinley, Linfield, Pa., first vice-pres.; Earl S. Ackerman, Albany, N. Y., second vice-pres.; W. E. Ashe, Buffalo, sec'y-treas. Directors include the above and Lloyd Hedrick, Buffalo; L. A. Riford, Cayuga, N. Y.; C. C. Lewis, Buffalo.

The organization pledged support of the principles of fair trade practice in use by the American Feed Manufacturers Ass'n and the Southern Mixed Feed Manufacturers Ass'n.

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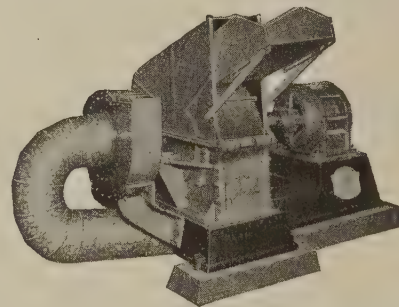
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Relative Protein Efficiency and Vitamin G Content of Poultry Supplements

By WILGUS, NORRIS and HEUSER of Cornell

Considerable evidence has accumulated which indicates that a wide variation exists in the growth-promoting properties of the protein-rich feedstuffs used in poultry rations. These discrepancies have been ascribed largely to differences in quality of proteins. Norris and Heuser suggested, however, that these properties may be due not only to protein quality, but also to vitamin G content. Later Norris and his coworkers, and Bethke, Record, and Kennard showed that the need of poultry for vitamin G is very great and that cereals and their byproducts do not contain sufficient of this vitamin to satisfy the need. It was evident, then, that much of the vitamin G required by poultry was supplied by means of the protein concentrates. Hence the usual conception of the value of these feedstuffs was only partially correct and a further investigation of this field was necessary.

Preliminary studies with chicks to determine the growth-promoting properties of meat scraps, whale-meat meals, and fish-meals, appeared to confirm the suggestion of Norris and Heuser. Accordingly, the subsequent work was conducted in two phases, based upon the theory that the value of protein-rich feedstuffs for feeding poultry was due both to protein quality and to vitamin G content. The first of these studies was limited to the evaluation of the proteins by determining their relative efficiency of utilization for growth processes. The second dealt with the quantitative determination of the vitamin G content of these materials. In a preliminary report of this investigation, evidence was presented which supports the initial theory. This has been corroborated recently by Record, Bethke, and Wilder, who found that haddock meal frequently contains considerable vitamin G as well as protein of fine quality.

The utilization for growth processes of the protein of protein-rich feedstuffs combined with an equal quantity of protein from yellow corn meal and wheat-flour middlings was determined by means of nitrogen balance trials. Final results were expressed as relative protein efficiency. These values were obtained by dividing the percentage of protein stored from a given ration by normal White Leghorn chicks during the seventh week of age by that from a standard casein ration, and multiplying by 100.

The relative protein efficiency of a number of the common protein supplements used in poultry rations has been determined. The materials studied, listed in order of their efficiency, are as follows: Vacuum- and steam-dried white fishmeals, 104; dried skim milk, 100; domestic sardine fishmeal, 98; flame-dried white fishmeal, 94; steam-dried menhaden fishmeal and Asiatic sardine meal, 91; soybean meal, 88; flame-dried menhaden fishmeal, 80; meat scrap, 77; whale-meat meal, 64; corn-gluten meal, 61; ground soybeans, 58. These results show that the variations in growth-promoting properties among and within the various classes of common protein supplements studied may be explained at least in part by variations in their relative protein efficiency. These variations were apparently due not only to differences inherent in the raw materials from which these products were obtained, but also to the various factors involved in their manufacture.

A method for determining the relative growth-promoting vitamin G content of feedstuffs has been developed, based upon the gain produced over the control diet by adding 5 or 10 per cent of the supplement under study. This was expressed in terms of dried pork liver affording an equivalent gain, and

the final results were calculated in percentage with dried pork liver as 100.

A number of samples of common protein supplements used in poultry rations have been assayed by this method. The materials studied, listed in order of their vitamin G potency, are as follows: Dried skim milk, 19; vacuum-dried white fishmeal, 10; domestic sardine fishmeal, 9; meat scrap, 6; steam- and flame-dried white and menhaden fish-meals and Asiatic sardine fishmeal, 5; soybean meal and ground soybeans, 3; corn-gluten meal and dried blood, 0. Thus the growth-promoting properties of the protein concentrates were found in general to be due to vitamin G content as well as to quality of protein. The range within many of the products was found to be rather wide. This was traced to methods of manufacture and types of ingredients used.—Excerpt from *Journal of Agricultural Research*.

Vitamin A Requirements of Hens for Egg Production

Three groups of White Leghorn hens were fed different amounts of vitamin A potency from yellow corn and dehydrated alfalfa leaf meal. Some of the hens were fed individually in batteries and the others in pens. The vitamin A potency of the feeds and in the eggs of the hens fed individually was estimated by the Sherman-Munsell biological method.

The mortality was greatest with the hens which received the least vitamin A. No significant differences were observed in the weights of the birds in the three groups. On an average, the lowest egg production was from the birds receiving the least vitamin A and the highest production from those receiving the most vitamin A. The percentage of eggs that hatched was low, 33 to 42% for the hens receiving the smallest amount of vitamin A and 69% to 79% for those receiving the other amounts.

The eggs produced after molting were either lower in vitamin A content than before molting or the same. The units per gram of feed for the formation of feathers seem to be as high as the requirements for egg production.

There apparently was no storage of vitamin A during the molting period by hens receiving as much as 8% alfalfa leaf meal in the mash.

The hens entered the experimental period with eggs low in vitamin A. There was an increase in vitamin A in the eggs during the first month of the feeding period followed by a decrease. The increase was greatest with the hens receiving the most vitamin A.

The apparent percentage of vitamin A recovered in the eggs averaged about 25% of that in the feed, but the percentage recovered during different months varied from 8 to 39. The highest apparent recovery is just before or during the period of maximum egg production.

On an average, four units in the feed were required for one unit of vitamin A potency in the egg. This may be compared with 6.3 units required at low levels in the 1932 work, or with 5.7 and 4.4 at higher levels in the 1933 work.

Since the hens at the beginning and at the end of the experiment laid eggs containing approximately the same quantity of vitamin A, there was probably little loss or gain of

vitamin A by the hens. The requirements for maintenance could not be separated from the requirements for the eggs.

The four units in the feed required for one unit in the egg were apparently sufficient both for the eggs and for maintenance.

Hens during period of heavy laying apparently may utilize more than the 25% of the vitamin A potency in the feed needed for the eggs, leaving some for maintenance.

It is estimated that hens laying per year 150 eggs high in vitamin A would require approximately 600 Sherman-Munsell biological units of vitamin A per day, or 7.5 units per gram of feed. This high requirement can best be met by allowing the fowls access to dark-green growing plants.

It is estimated that if the vitamin A content of the eggs is disregarded, laying hens may be kept in good health and produce eggs in good quantities on approximately 240 units of vitamin A per day, or 3 units per gram of total feed. This estimate is tentative but should serve a useful purpose until more accurate estimates can be made. Hens which have access to green feed from time to time may do well on feed containing less vitamin A than here estimated.—Bulletin 514 of Texas Exp. Station.

The idea that nothing can go well unless government has a hand in it is one of the most insane delusions that has ever vexed the mind of man.—John W. Davis.

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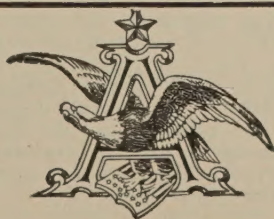
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Hardness of Cottonseed Cake

By G. S. FRAPS, Chief; and C. D. MARRS,
Assistant Chemist, Division of Chemistry,
Texas Exp. Station

Cracked cottonseed cake is extensively used for the feeding of range animals in Texas and in other states. Its form enables it to be fed directly upon the ground, from which it is picked up by the animals. Both cows and sheep are fed in this way. It is used as a supplementary feed when pastures are not sufficiently good, especially in winter or in times of drouth.

Complaints are occasionally received by the Division of Feed Control Service that cracked cottonseed cake sold for feeding purposes is too hard for the animals to eat. There are differences of opinion as to what constitutes hardness in cake, and what kind of cake is best suited for feeding purposes. Some believe that the cake should be so soft that it can be crushed by the heel of a boot. Others think the cake should be so hard that an old cow may hold it in her mouth and suck it for a long time. Very soft cake may crumble when exposed to weather, or it may partly fall to pieces in the sack, resulting in a loss of the small particles. Hard cake may be entirely refused by some animals. Some feeders have complained of cake so hard it broke the teeth of the animals so that the feeding trough had a number of broken teeth in it.

Some cottonseed crushers claim that a soft cake can be made only at the expense of a reduced production of oil. In other words, the soft cake contains more oil than the hard cake. Some millers find it difficult to make a cake as soft as their customers desire and at the same time to do efficient milling in the extraction of the oil.

The term "hardness" as used in this publication is applied only to the suitability of the cake as food for the animal. The object of the work here reported was to study the hardness of cottonseed cake, to devise methods for measuring it, to ascertain the factors which affect it, and in other respects to contribute to a solution of the problem of hardness of cottonseed cake as related to its suitability for feeding purposes.

Manufacture of Cottonseed Cake.—In the manufacture of cottonseed cake, the cotton seed are first cleaned in order to remove as much as possible of the sand, dirt, bolls, leaves, and other foreign matter present. After the seeds have been reginned in order to remove part of the lint, they are cut open with as little crushing as possible by a machine called a huller. The kernels are separated from the outside coat or hull by shakers and hull-beaters. Since the kernels vary in protein content, a sufficient amount of hulls is allowed to remain with the kernels to secure the desired protein content of the final product. The kernels are crushed between several sets of smooth steel rolls under high pressure and are then cooked at 212° to 235° F. for approximately 1 hour. The kernels are formed into layers which are enclosed in woven hair press cloths and subjected to a pressure of approximately 4,000 lbs. per square inch in order to expel as much oil as possible. The resulting press cakes are about 14x26 inches, ¾ inch thick, and weigh from 20 to 50 pounds. The cakes may be stored, exported, ground to a meal, or broken to form cracked cake. Cubes or cake made from cottonseed meal or other feed are also now on the market.

The quality of the cake is determined by its odor, color, and texture. The odor and color of the cake depend upon the quality of the seed and the proper control of the cooking process. Off-quality or sour seed will give cake which is off-quality in odor or color; excessive temperatures in the cooker may give a cake which is off-quality in color.

The sizes of cracked cottonseed cake as

agreed on by the National Cottonseed Products Ass'n, are as follows:

Nut-size cake should pass thru 1½ inch round perforations and pass over ⅞ inch round perforations. It should be free from meal and from pea-size and pebble-size cake, and it should not contain in excess of 10 per cent of sheep-size cake.

Sheep-size cake should pass thru ⅞ inch round perforations, and over ⅝ inch round perforations. It should be free from meal and pebble-size cake and should not contain in excess of 10 per cent of nut-size and pea-size cake.

Pea-size cake should pass thru ⅝ inch round perforations, and over ⅜ inch round perforations. It should be free from meal and from nut-size and pebble-size cake, and it should not contain in excess of 10 per cent of sheep-size cake.

Pebble-size cake should consist of fine particles and small pieces of cottonseed cake capable of passing thru ⅜ inch round perforations.

Apparently the hardness of the feed should not be greater than that of the teeth which are to be used to crush it. For this reason, it is desirable to have information regarding the crushing strength of the teeth of the sheep and of the cow.

A number of cow teeth and sheep teeth were secured from Armour & Co. and from Swift & Co. of Fort Worth. The back, or crushing teeth were the only teeth tested. The cow teeth were mounted singly in short sections of 2-inch pipe by means of a mixture of equal parts of portland cement and sand. These mountings were covered with moist sand and were allowed to harden for 7 days before testing. The sheep teeth were mounted in similar sections of 2-inch pipe, but because of the shortness of the teeth, Woods metal was used instead of cement. Both the sheep and cow teeth were mounted so that the plane of their crushing surface was perpendicular to the direction of the applied testing load.

Crushing tests of sheep teeth showed the following weights: 420, 540, 800, 920, 960, 1000, 1010, 1020, 1050, 1090, 1100, 1160, 1160, 1220, 1220, 1230, 1240, 1300, 1320, 1320, 1360, 1360, 1360, 1430. Average—1108.

Cow teeth withstood the following weights: 1080, 1420, 1420, 1460, 1480, 1580, 1600, 1620, 1620, 1680, 1730, 1770, 1800, 1800, 1800, 1800, 1860, 1880, 2080, 2100, 2120, 2170, 2240, 2250, 2320, 2440, 2460, 2560, 2640, 2670, 2780, 3580, 3580, 3850, 4550. Average—2165.

The load required to break the 24 sheep teeth tested varied from 420 to 1430 pounds with an average of 1108 pounds. By similar tests the crushing strength of samples of commercial cracked cake was found to vary from 65 to 8240 pounds with an average of 1328 pounds. It is evident that some of this cracked cake was harder than the teeth of both cow and sheep, and that teeth could be broken if the animals applied sufficient force in chewing.

The Bootheel Test.—It has been the practice of some stockmen for years to test the hardness of cottonseed cake by placing a piece of cracked cake on a concrete floor or slab, standing on it with the heel of one foot, and then spinning around with the full weight of the body on the test specimen or otherwise crushing it with the heel of the boot. If the specimen is crushed by this procedure, the stockman considers it soft enough for feeding, and if the specimen is not crushed by this test, he considers it too hard for feeding. For convenience, we term this the "bootheel test." This test, however, is indefinite because of the various degrees of roughness of the bootheel and the floor, and the various weights of the persons making the test. The size and the shape of the test specimens also affect the results.

Tests indicate that a sample which meets the bootheel test must have a crushing

strength of less than 450 pounds. Most of the samples of commercial cracked cottonseed cake tested had average crushing strengths that exceeded 449 lbs. and thus could not meet the bootheel test.

Edibility of Varying Degrees of Hardness.—A series of experiments was conducted in order to determine the edibility of cottonseed cake of varying degrees of hardness. Four cows of the Division of Dairy Husbandry which had been on pasture for some

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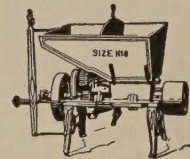
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time were placed in a dry lot. In a preliminary period, these cows were fed one pound of cracked cottonseed cake each day, and nothing else. A very small amount of mixed dairy feed was sprinkled over the cracked cake at each feeding during the first few days of the experiment in order to induce the cows to eat the cake. These cows were first fed on samples of soft cracked cake.

Two of the cows refused to eat the soft cracked cake, even though almost starved for several days, while the other two cows ate practically all of the soft cake fed to them. The two cows refusing the cake were returned to the pasture, and the remaining two cows were fed harder samples of cake.—From Texas Bulletin 523.

Appetizers Increase Growth Rate of Pigs

Added to an adequate diet of natural feedingstuffs, physin, an appetite-stimulating factor, accelerated the growth rate of hogs by 40%, in studies at the English Animal Nutrition Research Institute, as reported by G. Dunlop, tho it did not enhance the net energy value of the ration.

Supplemental feedingstuffs for pigs, named in the order of their physin or appetite-stimulating factor, from the highest to the lowest, are: Liver, liver meal, dried whole milk, whey, green feed, fishmeal, tankage, and soybean oil meal.

Tankage Holds First Place in Swine Feeding

A series of three experiments with feeding a variety of rations to pigs during the winter and summer of 1935 are reported by C. E. Aubel and W. E. Connell of the Kansas Experiment Station. The tests are summarized as follows:

WINTER, 1935.—Four lots of pigs were fed a basal ration of shelled corn for 120 days in dry lot. In addition, the respective lots received: Tankage and alfalfa hay; meat scrap and alfalfa hay; tankage, linseed meal, and alfalfa meal 2:1:1; and meat scrap, linseed meal, and alfalfa meal 2:1:1. The average daily gains in the respective lots were 1.4, 1.3, 1.5, and 1.4 lb. per head. The results showed that tankage either alone or as a part of a mixture was more efficient in producing gains than meat scrap. The animals fed tankage in dry lot gained more efficiently than those fed meat scrap.

SUMMER, 1935.—Four lots of pigs were fed on alfalfa pasture for 120 days. Lots 1 and 2 received shelled corn and lots 3 and 4 soaked shelled corn. The protein supplements fed in the respective lots were tankage, meat scrap, tankage, and semisolid buttermilk. The average daily gains in the respective lots were 1.5, 1.4, 1.6, and 1.2 lb. per head.

As a protein supplement to corn on alfalfa pasture, tankage and meat scrap were approximately equal. Soaked corn produced larger but not as economical gains as shelled corn. The ration of soaked corn and semisolid buttermilk proved inefficient in rate and economy of gain.

SUMMER, 1935.—Three lots of pigs were fed for 120 days on a basal ration of shelled corn and tankage. Lot 1 was on alfalfa pasture, lot 2 was fed alfalfa hay in dry lot, and lot 3 received fresh-cut green alfalfa three times per week. Average daily gains in the respective lots were 1.5, 1.4, and 1.3 lb. per head.

The pigs in lot 1 made the largest and most economical gains. The dry-lot pigs consumed almost twice as much tankage per unit of gain as those on pasture. Lot 3 made smaller gains than lot 2, but the cost of gains in these lots was practically identical.

Cattle Utilize Tankage to Advantage

Prof. D. W. Johnson, University Farm, St. Paul, Minn., has completed comparative tests using tankage and linseed meals as protein supplements in feeding three lots, with nine head each, of Hereford steers. The results showed that tankage was entirely satisfactory as a sole protein supplement.

All lots got alfalfa and prairie hay for roughage, bone meal and salt. Lot 1 had a supplement of 1½ pounds corn and linseed meal, Lot 2 corn and .85 pounds tankage, Lot 3 a mixture of corn, tankage and linseed meal. All supplements were held to the same protein content. The usual hesitation was shown by the cattle eating tankage for the first time, but they took to it readily by the end of the first week.

Test time was 77 days. Average gains were as follows: Lot 1 (Linseed Meal) 2.81 lbs.; Lot 2 (Tankage) 2.82 lbs.; Lot 3 (Linseed Meal and Tankage) 2.74 lbs.

Distribution of Vegetable Oils

Domestic factories consumed 4,494,287,000 lbs. of primary animal and vegetable fats and oils during 1935, reports the Department of Commerce. This total included 1,333,739,000 lbs. of cottonseed oil, 109,378,000 lbs. peanut oil, 56,121,000 lbs. corn oil, 91,166,000 lbs. soybean oil, 35,802,000 lbs. rapeseed oil, and 291,684,000 lbs. linseed oil.

Manufacturers of compounds and vegetable shortenings used 985,790,000 lbs. cottonseed oil, 90,500,000 lbs. peanut oil, and 52,452,000 lbs. soybean oil, the major competitors in this field. The soap industry took 2,549,000 lbs. of soybean oil, but used much larger quantities of coconut oil, palm kernel oil, palm oil, inedible tallow, and fish oils. The paint and varnish industry consumed 230,146,000 lbs. linseed oil, 13,003,000 lbs. soybean oil, the linoleum and oilcloth industries took 41,809,000 lbs. linseed oil, 4,816,000 lbs. soybean oil.

The A.A.A. announced Mar. 28 that the government will pay growers \$21 a ton for delivering Virginia-type peanuts to oil millers, instead of selling them for food. For the diversion of other types less will be paid.

Books Received

MEN, MONEY AND MOLECULES gives the non-technical reader a comprehensive view of the wonderfully developed chemical industry of today in 214 pages by William Haynes and published by Doubleday, Doran & Co., Garden City, N. Y.

FIVE STEPS FROM DEMOCRACY TO DICTATORSHIP recounts what has been done by the executive department of our government during the past three years to build up new instruments of public power. Issued by the American Federation of Investors, Chicago, as a pamphlet of 12 pages and sold in quantity at a nominal price.

FREIGHT COSTS of Moving Iowa Feed Grains from surplus to deficit areas presents a picture of the railroad rate structure, explains local, intrastate, proportional, joint and interstate rates, to Cedar Rapids, Des Moines, Council Bluffs, Sioux City, Mississippi River and 7 terminals outside the state, by Ronald C. Bentley, in Bull. 342 of the Iowa Agri. Exp. Sta., Ames, Ia.

DUST EXPLOSIONS During Fire Fighting. The turning of a full stream of high pressure water on burning dust introduces a serious dust explosion hazard by throwing a dust cloud on the flames, David J. Price, chemical engineer, points out in this circular, with suggestions on proper procedure for the fire fighters. Illustrated; 10 pages; Circular No. 385, U. S. Dept. of Agriculture, Washington, D. C.

Cipher Codes

Universal Grain Code: Most complete, up-to-date grain code published. Effects a greater reduction in tolls than any other domestic code. 150 pages, 4½x7 inches. Price, leather, \$3.00; paper, \$1.00.

Robinson Telegraph Cipher Code: Revised with all supplements, for domestic grain business. Leather, \$2.50; cloth, \$2.00.

Dowling's Grain Code for Grain Milling and Produce Trades, 6th edition: Used extensively in Western Canada. 154 pages, 4¼x6½ inches. Weight 4 ozs. Price \$3.00.

Millers Telegraphic Cipher: (1927) For the milling and flour trades. 77 pages, 3¼x6 inches. Cloth bound. Price \$2.00.

Cross Telegraphic Cipher: 10th edition revised for provision and grain trades. 148 pages, 4½x5½ inches. Cloth \$4.00.

A. B. C. Improved Fifth Edition with Sup.: Reduces cable tolls 50% thru use of five-letter words, any two of which may be sent as one. In English. Price, \$20.00.

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Riverside Flour Code, Improved (5 letter revision): Sixth edition. For use in domestic and export trade. Size 6x7 inches, 304 pages. Bound in flexible leather, \$12.50.

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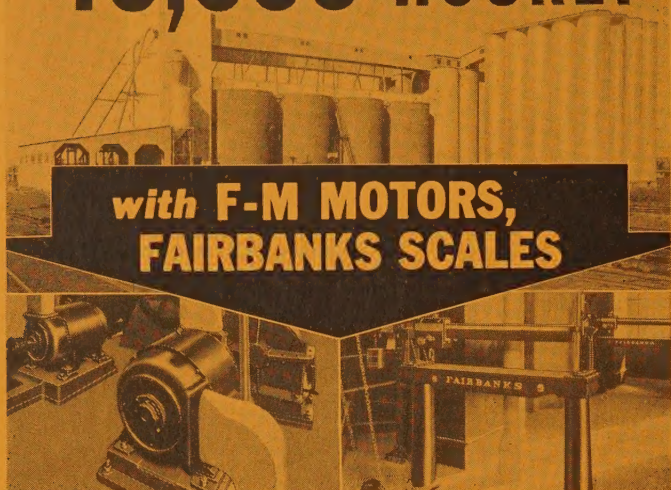
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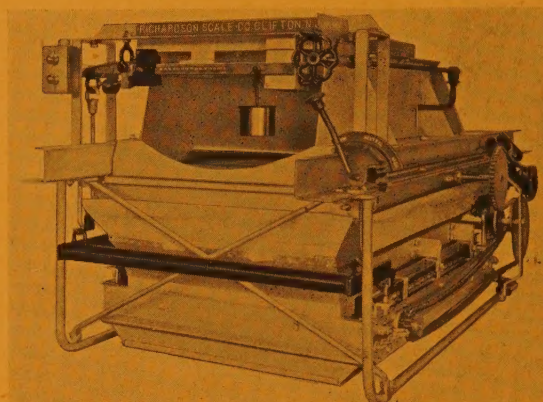
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